Novice Driver Preparation – An International Comparison

Annex: Country profiles

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Annex: Country profiles

The present research report compared the systems of novice driver preparation in 44 different countries, placing a focus on selected descriptive features such as the applicable framework conditions (e.g. minimum age requirements) and the forms of teaching/learning and testing used. This information was presented above all in the form of tabular overviews and comparisons between predefined groups of countries, an approach which to a certain extent - masks the country-specific arrangements and interactions of the individual measures and conditions for novice driver preparation. Consequently, as a complement to the comparative presentation, these measures and conditions are now to be described once more in the form of holistic "country profiles", to shed clearer light on the specifics of the "system of novice driver preparation" in individual countries. How are these country profiles structured, and what information do they provide?

Schematic representation and overview

Each profile begins with a brief introductory text and a schematic overview in graphic form to identify the elements which belong to the particular system of novice driver preparation². A distinction is made between a "supervised learning phase" and an "autonomous learning phase" (see Chapter 2.2.1), reflecting the temporal course of the process of novice driver preparation; novice driver preparation ends finally with the lifting of all novicespecific protective regulations and the granting of an unrestricted driving licence. Through the differentiation of a supervised and an autonomous learning phase, the various forms of teaching/learning and testing can be assigned to the period of preparation either prior to or after the commencement of solo driving. Particular emphasis is given to the transition between these two learning phases, because the commencement of solo driving is accompanied by a significant increase in accident risk.

Framework conditions

This section explains the minimum age requirements anchored in the underlying legislation; depending on the specific circumstances of a system, these prerequisites may refer, for example, to the commencement of formal driving school training or the admission to certain tests. In addition, the relevant proof of fitness to drive – and possibly also knowledge of first aid measures – to be furnished by the driving licence applicant is described. Where information is available on teaching plans and curricula for formal driving school training, this is also presented accordingly. The same applies to specifications of the overall duration of novice driver preparation and the costs which arise for novice drivers wishing to obtain a driving licence.

Forms of teaching/learning and testing

The available teaching/learning forms (e.g. theory classes, accompanied driving) and the conditions for their use, as well as the prescribed forms of testing (e.g. knowledge test, driving test) in an individual country, are described in separate subsections in each case.

Quality assurance

To illustrate quality assurance measures relating to formal driving school training and the system for novice driver testing, the applicable qualification and training for driving instructors and driving test examiners is presented. Furthermore, information is given on the auditing of driving schools and on quality assurance within the test organisations.

Further development

This section serves to describe any planned or already partially realised measures aimed at the further development of novice driver preparation.

In the following, "country profiles" are presented in alphabetical order for 30 of the countries taken into account by the project.

The schematic representations indicate merely the (legally) prescribed minimum age requirements for granting of a driving licence, together with the correspondingly prescribed or typical arrangement of the individual elements of novice driver preparation. The lengths of the phases depicted in the diagrams are not proportional to the actual durations of driving competence acquisition or the overall process to obtain a driving licence.

² Where optional training models exist in a particular country, the different available systems are presented in separate diagrams.

Belgium

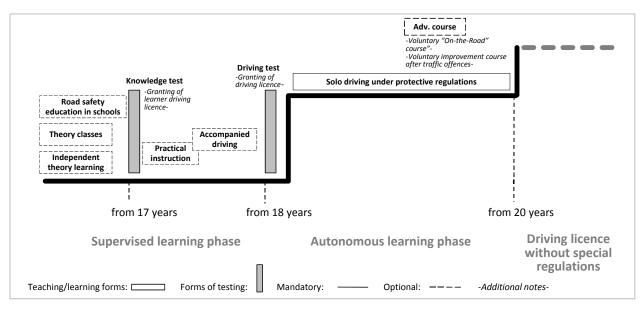


Fig. 1: System of novice driver preparation in Belgium - "36M" model (learner driving licence, limited to 36 months)

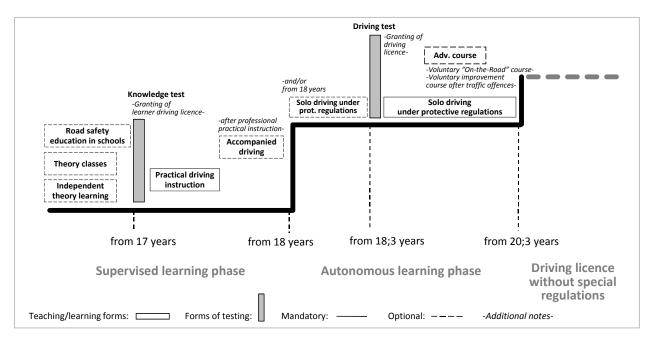


Fig. 2: System of novice driver preparation in Belgium - "18M" model (learner driving licence, limited to 18 months)

Overview

The supervised learning phase is divided into two parts: As a first stage, novice drivers acquire traffic-related knowledge by way of independent theory learning and optional theory classes. Subsequently (at the earliest from the age of 17 years), they must take a knowledge test, the passing of which leads to the granting of a learner driving licence. This constitutes the entitlement to commence practical driving instruction on the road; this

instruction can be given by either a lay person or a professional driving instructor and represents the second stage of the supervised learning phase. At this point, novice drivers are able to choose between two different models of novice driver preparation:

 Under the "36M" model, the learner driving licence may be used for practical driving instruction and accompanied driving for a period of at least three months, but at most for 36 months (starting at the earliest from the age of 17 years). The practical driving instruction may be given exclusively by a lay trainer, though it is also possible to attend training sessions with a professional driving instructor. A driving test must be taken before the learner driving licence expires (at the earliest from the age of 18 years). If passed, this leads to granting of a driving licence marking the transition to an autonomous learning phase.

If the "18M" model is chosen, the learner driving licence issued after passing a knowledge test (valid for a period of up to 18 months) requires first the completion of at least 20 hours of practical driving instruction with a professional driving instructor. This is followed by a period in which accompanied driving is possible, until finally solo driving is permitted under certain protective regulations at the earliest from the age of 18 years.³ The driving test can be taken at any time from the age of 18 years and 3 months, but must have been taken before the learner driving licence expires.

In both cases, a successful driving test is followed by a two-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for admission to the knowledge test and thus for the granting of a learner driving licence is 17 years. A similar minimum age of 17 years is also prescribed for the commencement of practical driving instruction. Under the "36M" model, the driving test cannot be taken until the candidate reaches the age of 18 years; if the driving test is passed, the novice driver is permitted to drive solo. Under the "18M" model, solo driving under protective regulations is permitted at the earliest from the age of 18 years; the driving test can only be taken after a subsequent period of at least three months, i.e. at the earliest at the age of 18 years and 3 months. A driving licence free of special regulations for novice drivers is issued at the earliest 24 months after passing the driving test, i.e. from the age of 20 years ("36M" model) or 20 years and 3 months ("18M" model).

Proof of fitness to drive

Driving licence applicants must present a selfreport on their health status, based on a prescribed

³ Belgium is the only country – of those taken into account by the project – in which solo driving is already possible before taking the driving test (under the "18M" model).

checklist of minimum requirements relating to their physical and mental fitness to drive. In addition, an eyesight test is performed immediately following the knowledge test.

Duration and costs

On average, either around 20 months ("36M" model) or else less than 12 months ("18M" model) pass before a novice driver commences solo driving. Special regulations apply to novice drivers during the first 24 months after obtaining a driving licence; these protective regulations are lifted at the earliest from the age of 20 years under the "36M" model, or at the earliest from the age of 20 years and 3 months under the "18M" model. The average costs incurred by a novice driver to obtain a driving licence lie between 200 and 300 Euros.

Curriculum

The contents of formal driving school training are anchored in a curriculum. This curriculum, however, is developed not at overall state level, but under regional responsibility, and is thus not binding across the whole country.

Teaching and learning forms

Theory classes

Theory classes are an optional teaching/learning form for novice drivers. The attendance rate lies between 8 and 10 per cent. Theory classes are offered both by commercial driving schools and within the framework of secondary school education (see "Road safety education in schools" below), and are given by a professional driving instructor. The typically used teaching/learning methods include lecture presentations, the completion of test sheets and the integration of external persons into the classes. Text books, slides, models of traffic and road infrastructures and computer-based training offers are the teaching/learning media used.

Road safety education in schools

In secondary schools in the Flemish-speaking regions, pupils are able to prepare for the knowledge test within the framework of the project "Driving Licence at School" ("Rijbewijs op School"). Eight hours of theory classes are given by a professional driving instructor, and the knowledge test is also conducted in the school by a driving test examiner (see "Further development" below).

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. The available teaching/learning media are printed and electronic materials from commercial publishers.

The test items used in the knowledge test are not publicly accessible.

Practical driving instruction

Professional practical driving instruction offered by a commercial driving school is only mandatory in connection with the "18M" training model. This practical driving instruction comprises a minimum of 20 course units (of 60 minutes each). The typically used teaching/learning methods are practice drives on standard and flexible routes in real traffic, "commentary driving" and demonstrations by the driving instructor. Practical driving instruction is realised as individual instruction. It is prescribed that the training vehicle must be equipped with dual controls.

The possibility of practical driving instruction with a lay trainer from the age of 17 years ("36M" model) is used by about 50 per cent of novice drivers. The prerequisite here is successful completion of a knowledge test and the subsequent granting of a learner driving licence. During such training, only one further passenger is permitted to be present in the vehicle alongside the lay trainer and the novice driver. It is furthermore forbidden to drive between 10.00 p.m. and 6.00 a.m. at weekends (Fridays, Saturdays and Sundays) or on public holidays and the days before such holidays. The training vehicle must be marked as such and must be fitted with a second rear-view mirror. It may not be used for business purposes, and it is not permitted to tow a trailer or drive abroad. The hand brake must be within reach of the lay trainer. The lay trainer must have been in possession of a class B driving licence for at least eight years, and must not have received any driving bans during the past three years. There are no restrictions on the persons eligible to act as a lay trainer, provided the aforementioned prerequisites are met.

Accompanied driving

Under the "36M" model, novice drivers are able to acquire practical driving experience by way of accompanied driving with a learner driving licence; this licence must be used for at least three months and is valid for a maximum of 36 months. No information was received regarding the average amount of driving done by novice drivers before the commencement of solo driving.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a probationary driving licence for a period of two years. Those novice drivers who are permitted to drive solo before taking the driving test (i.e. with a learner driving licence valid for up to 18 months within the framework of the "18M" model; see "Overview" above) must observe an

exclusion of night-time driving between 10.00 p.m. and 6.00 a.m. at weekends (Fridays, Saturdays and Sundays), as well as on public holidays and the days before such holidays. The vehicle used must be marked as a training vehicle, and only one passenger may be carried; this passenger must furthermore be at least 24 years old and himself in possession of a class B driving licence.

The measures which may be prescribed in case of traffic offences include driving bans and the associated requirement to repeat the knowledge and driving tests.

Advanced training courses

Novice drivers in Belgium can choose to attend a voluntary 3.5-hour course ("On-the-Road"), during which driving manoeuvres and emergency braking are trained on a practice ground.

Drivers who have committed traffic offences are invited to attend specific voluntary improvement courses (on the topic of "Alcohol" or "Speeding"). In this way, it is possible to achieve a reduction of the imposed fines or, where appropriate, a shortening of the period of driving licence withdrawal.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, the candidate must give correct answers to at least 41 of the total of 50 test items (multiple-choice questions). The overall duration for the test is 25 minutes, with a maximum of 15 seconds allowed per test item. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. The test result appears on the screen at the end of the test and the candidate receives a corresponding written report. This report contains feedback to the novice driver on the test items which were not answered correctly. The pass rate for the knowledge test is 59 per cent.

Driving test

The driving test takes place in real traffic. The total test duration is around 40 minutes, of which at least 25 minutes are assigned to the actual test drive. The driving instructor or lay trainer must be present during the test and bears legal responsibility for the vehicle.

Within the framework of technical preparation of the vehicle, it is determined, for example, whether the novice driver is able to set his seat position, safety belts, mirrors and head-rests correctly, and whether the necessary precautionary measures are taken when leaving the vehicle. In addition, a randomly selected technical vehicle check must be demonstrated, for example knowledge of how to check the proper functional condition of the tyres, brakes, steering, engine fluids, front and rear lights, radiator system, turn indicators or signal horn.

During the test drive, the two basic driving manoeuvres "Turning the vehicle in a narrow road" and "Parking" must be performed. In the case of the former, the novice driver may himself decide where to perform the manoeuvre – after being asked to do so by the driving test examiner.

The test drive follows a prescribed route in real traffic, which is specified in the form of certain waypoints which must be passed during the course of the test. The test route in a particular case is determined by the candidate drawing lots at the beginning of the test. During the test drive, the candidate is given concrete driving instructions by the driving test examiner.

The driving test examiner distinguishes four assessment categories in his observations and assessment of the individual elements of test performance: "Inadequate", "Unsatisfactory", "Subject to reservations" and "Satisfactory". The driving test is failed if any element of the test is deemed "Inadequate" or else the assessment "Unsatisfactory" is recorded on two occasions. A single "Unsatisfactory" assessment in conjunction with two further points which are "Subject to reservations" likewise leads to a negative test result, as does the accumulation of four cases of "Subject to reservations". The driving test is similarly not passed if the novice driver commits a driving error which leads to an immediate endangering of road safety.

At the end of the test drive, the test result is communicated during a concluding discussion with the driving test examiner. This approximately five-minute discussion takes place in a meeting room and includes an evaluation of the test drive. The novice driver also receives a test report. If the test is unsuccessful, a repeat attempt is possible at the earliest on the following day. If the novice driver fails the driving test twice, six driving lessons must be taken with a professional driving instructor before a further driving test can be taken. The pass rate for the driving test is 60 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 22 years and possession of a class B driving licence for at least three years. To be allowed to offer practical driving instruction, it is furthermore necessary to have gained practical driving experience over a period of at least four years in the class in which instruction is to be given. Persons wishing to provide theory classes or manage a driving school must have obtained a certificate of at least advanced-level school education (constituting the entitlement to commence university study). A medical examination is also prescribed, and there must be no traffic-related or criminal offences on record against the prospective instructor.

Within the framework of driving instructor training, various certificates can be obtained as entitlement to offer theory classes or practical driving instruction for a particular category of driving licence. The prescribed tests comprise written and oral theoretical tests and sample demonstrations of theoretical and practical instruction. Annual further training is a prerequisite for the renewal of a previously granted certificate.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection. Within the framework of these opening inspections, the compliance with a variety of further specifications and requirements is verified, for example fire safety regulations, insurance cover and the prescribed certificates for the driving instructors employed. Later, regular audits are performed at approximately annual intervals, and serve to monitor the standard of the classrooms and teaching materials, as well as documentation of the driver training provided.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 25 years who have successfully completed advanced-level school education and have been in possession of a driving licence for at least seven years. There must be no driving bans or cases of licence withdrawal on their driving record, and they must moreover display both exemplary personal conduct and the necessary mental and physical fitness. Further prerequisites for the profession are attendance at corresponding courses of theoretical and practical training, and the successful completion of subsequent theoretical and practical tests as proof of the stipulated professional qualification.

Quality assurance measures in test organisations

Quality assurance measures relating to the knowledge test involve reviews of test statistics and comparison of the difficulty index of individual test items at six-monthly intervals. Test items are with-

drawn or replaced on the basis of legislation amendments or statistical conspicuity. With regard to the driving test, quality assurance embraces analyses of the statistical data on test assessments and observer monitoring of individual tests. The test procedures for both knowledge tests and driving tests are also subject to periodic evaluation by auditors appointed by the test organisation ("GOCA"); the corresponding audit procedures, however, are specified by the state authorities.

Further development

The project "Driving Licence at School" ("Rijbewijs op School") provides for the systematic acquisition of traffic-related knowledge and completion of the knowledge test within the framework of general school education in Flanders. In this context, novice drivers from the age of 17 years attend eight hours of theory classes conducted by a professional driving instructor as part of their school curriculum. The schools themselves are offered financial means for the purchasing of teaching materials. The knowledge test is also taken at school, where the use of laptop computers allows for such "mobile" test realisation by the test organisation GOCA. The project was initially offered as a pilot scheme in 25 schools during the school year 2007/08, and has been available to all schools in Flanders since the school year 2008/09.

The project "Start to Drive" was started in 2007 and addresses novice drivers who wish to learn to drive with a lay trainer. The aim is to support a systematic and longer-term teaching/learning process. To this end, the novice driver and his supervisor first attend an info evening lasting two-and-a-half hours, at which they receive practical information on the realisation of lay driver training. Subsequently, they together attend two driving lessons with a professional driving instructor. This is followed by a training phase of at least two months, which ends with a learner assessment by a driving test examiner ("trial test"). The actual driving test is taken after a further training phase of at least one month.

⁴ http://www.starttodrive.be (1 September 2011)

Bulgaria

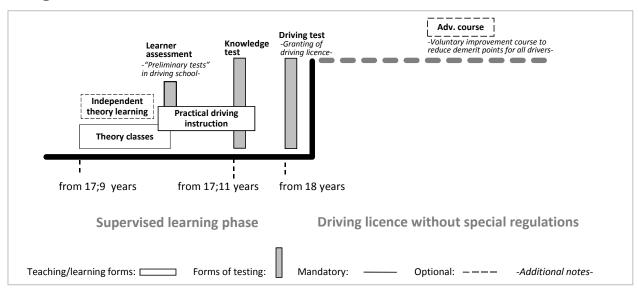


Fig. 3: System of novice driver preparation in Bulgaria

Overview

During the supervised learning phase, it is a mandatory requirement to attend theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 17 years and 9 months). Novice drivers must pass learner assessments in the driving school before being allowed to take the knowledge test (at the earliest from 17 years and 11 months) or driving test (at the earliest from the age of 18 years). If the driving test is passed, a full, unrestricted driving licence is issued, i.e. the system does not specify any protective regulations for novice drivers.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction in a driving school is 17 years and 9 months. The knowledge test may be taken from the age of 17 years and 11 months. The minimum age requirement for the driving test is 18 years, and thus the earliest age for the granting of a driving licence is similarly 18 years.

Proof of fitness to drive

Driving licence applicants are required to undergo a medical examination, which includes testing of their vision and hearing.

Knowledge of first aid

Novice drivers must complete a first aid course organised by the Bulgarian Red Cross. This course comprises theoretical and practical training com-

ponents, for which the novice driver receives a corresponding certificate of participation.

Duration and costs

No data were received on the average duration of the supervised learning phase; the theory classes and practical driving instruction in a driving school, however, must be spread over a period of at least three weeks. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 250 Euros.

Curriculum

The contents of the theory classes and practical driving instruction are based on a curriculum anchored in legislation.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 40 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

Independent theory learning

Commercial publishers offer novice drivers both printed and electronic teaching materials to support independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 31 course units (of 50 minutes each) must be completed.

Practical driving instruction is offered exclusively by commercial driving schools.

Advanced training course

After the commencement of solo driving, any traffic offences are documented by way of a demerit points system. All drivers are able to reduce the number of points on their record by attending a sixhour course in a driving school.

Forms of testing

Learner assessments

After completing the mandatory scopes of theoretical and practical training, novice drivers must attend learner assessments ("preliminary tests") organised by the driving school in which they are learning to drive. These learner assessments take the form of simulations of the subsequent knowledge and driving tests.

Knowledge test

The knowledge test is realised as a "paper-and-pencil" test. To pass, at least 55 of the total of 60 test items (multiple-choice questions) must be answered correctly. The candidate is allowed 40 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. Feedback on test performance is given to the candidate in a subsequent discussion with the driving test examiner, and includes not only the overall test result, but also information on the test items which were answered correctly or incorrectly. The pass rate for the knowledge test is 50 per cent.

Driving test

The driving test takes place exclusively in real traffic, and the duration of the test drive is at least 25 minutes. The driving instructor must participate in the test; the driving test examiner sits in the front passenger seat and assumes legal responsibility for the vehicle. The test drive follows a flexible route, over the course of which certain road features and demand situations must be encountered (e.g. intensive traffic, at least three junctions controlled by traffic lights or a police officer, at least five possibilities to turn left or right, roads passing schools and public transport stops). During the test drive, the novice driver is given concrete driving instructions by the driving test examiner. "Parking" and "Driving off uphill" are tested as basic driving manoeuvres.

If the driving test is failed, the novice driver must take further practical driving instruction in the driving school before a repeat attempt is possible. The pass rate for the driving test is 47 per cent.

Quality assurance

Training of driving instructors

Prerequisites for admission to the profession of driving instructor are a minimum age of 23 years and a certificate of advanced-level school education (12 years); furthermore, there must be no criminal or traffic-related offences on record against the candidate.

Driving instructors must complete professional qualification training. This training comprises theoretical and practical components, which are spread over a period of approximately four years, but is not realised as a full-time course. The training takes place in state institutions, with a distinction being made between instructors for theory classes and for practical driving instruction. The concluding test for the prospective driving instructor comprises a written section lasting 240 minutes and an oral section lasting 60 minutes. If the test is passed, a driving instructor licence is issued without time limitations. Further training is not prescribed.

Training of driving test examiners

Admission to the profession of driving test examiner requires at least five years of prior experience as a driving instructor, and furthermore a certificate of psychological fitness. Driving test examiners are not permitted to work as driving instructors at the same time; they must also not be married or otherwise related to an active driving instructor. Examiners must attend regular further training measures.

Quality assurance measures in test organisa-

The items of the knowledge test are reviewed at regular intervals, taking into account amendments to the legal framework and comments received from driving instructors and driving licence applicants. The test items are developed by a group of experts from the ministry of transport.

Further development

The legal regulations governing driving licence testing contain provisions for the knowledge test to be realised with the aid of a computer. The introduction of a PC-based test is planned.

California

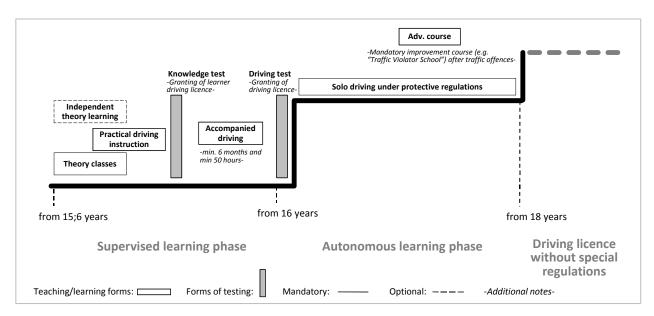


Fig. 4: System of novice driver preparation in the US state of California (model for novice drivers under 18 years)

Overview

During the supervised learning phase (commencing at the earliest from the age of 15 years and 6 months), it is a mandatory requirement for novice drivers under the age of 17 years and 6 months⁵ to attend theory classes and practical driving instruction with a professional driving instructor ("Driver Education"). Candidates must pass a knowledge test (at the earliest from the age of 15 years and 6 months) and are then granted a learner driving licence ("Provisional Permit"). With this learner driving licence, novice drivers are entitled to gain experience through accompanied driving over a period of at least six months. If the subsequent driving test is passed (at the earliest from the age of 16 years), a "Provisional License" is issued and the novice driver is permitted to drive solo under protective regulations. A driving licence free of special regulations for novice drivers is granted after an autonomous learning phase of 12 months or from the age of 18 years.

Framework conditions

Minimum age requirements

The minimum age for attendance at theory classes, the commencement of practical driving instruction ("Driver Education") and admission to the knowledge test to obtain a learner driving licence ("Provisional Permit") is 15 years and 6 months. The earliest age at which the driving test can be taken and thus solo driving under protective regulations can begin (with a "Provisional License") is 16 years. A driving licence free of special regulations for novice drivers can be issued at the earliest after 12 months or from the age of 18 years.

Proof of fitness to drive

Novice drivers must pass an eyesight test at the time of the knowledge test. If inadequate vision is determined, the candidate must visit an ophthalmologist. It is furthermore necessary to present the certificate from a health examination by a doctor.

Duration and costs

For novice drivers under 18 years, the supervised learning phase lasts a minimum of six months before the driving test can be taken and solo driving under protective regulations may begin. Protective regulations apply for the first 12 months after the commencement of solo driving or up to the age of 18 years. No data were received on the costs incurred to obtain a driving licence.

⁵ No formal training ("Driver Education") is prescribed in advance of the issuing of a learner driving licence for novice drivers over the age of 17 years and 6 months. The driving test can be taken at the earliest from the age of 18 years. Before the driving test is passed, it is only permitted to drive when accompanied by a person who is over 18 years of age and already in possession of a driving licence.

Teaching and learning forms

Theory classes

Attendance at theory classes is mandatory for novice drivers under the age of 17 years and 6 months. At least 30 course units must be completed. Theory classes are offered either by state-recognised commercial driving schools or in state schools, and are given by professional driving instructors or specially trained school teachers.

Independent theory learning

Exercises serving as preparation for the knowledge test are made available through the website of the California Department of Motor Vehicles (DMV). The principal source for knowledge acquisition in connection with the obtaining of a driving licence is the so-called "California Driver Handbook" published by the DMV.

Practical driving instruction

Practical driving instruction with a professional driving instructor is prescribed for novice drivers under the age of 17 years and 6 months. At least six course units must be completed. This instruction is offered either by state-recognised commercial driving schools or in state schools, and given by professional driving instructors or specially trained school teachers. Practical driving instruction with a lay trainer (or extended practical driving experience in the form of accompanied driving) is possible after completing the formal driving school training and obtaining the corresponding learner driving licence ("Provisional Permit").

Accompanied driving

Novice drivers under 18 years of age are able to acquire practical driving experience within the framework of accompanied driving from the age of 15 years and 6 months, provided they are in possession of the necessary learner driving licence. This means that the novice driver must have previously completed the mandatory theory classes and practical driving instruction ("Driver Education") and must have passed the knowledge test.

A period of at least six months of accompanied driving is prescribed before the driving test can be taken. This accompanied driving must reach a scope of at least 50 hours of driving, of which at least 10 hours must be driving in the dark. The accompanist must give a written declaration that the prescribed number of driving hours was actually completed.

The accompanist must be at least 25 years of age and must possess a valid driving licence (equivalent to European class B). During accompanied driving, the accompanist must sit next to the novice driver, so as to be able to intervene in his driving if the need arises.

Solo driving under protective regulations

After passing the driving test, novice drivers are granted a provisional driving licence valid for a period of two years or until the holder reaches the age of 18 years. During this period, night-time driving (between 11 p.m. and 5 a.m.) is only permitted if the novice driver is accompanied by a person who is over 25 years of age and himself in possession of a driving licence. It is similarly only permitted to carry passengers under the age of 20 years if an experienced accompanist is also present in the vehicle.

Up to the age of 21 years, a lower maximum permissible blood alcohol content of 0.01 per cent applies when driving. In case of traffic offences, the driving licence may be withdrawn and a variety of sanctions may be imposed, for example improvement courses (see below), driving bans or an extension of the autonomous learning phase.

Advanced training course

In case of alcohol- or drug-related traffic offences, a driver may be required to attend a corresponding improvement course ("Driving under the Influence of Alcohol or Drugs/DUI Program", "Traffic Violator School").

Forms of testing

Knowledge test

To pass the knowledge test, 39 of the total of 46 test items must be answered correctly. The test items are presented in the format of multiple-choice questions, where exactly one of the answer options is correct in each case. The test contents cover the subject areas "Right of way", "Parking", "Visual perception", "Turning", "Use of traffic lanes", "Safe behaviour", "Vehicle equipment and controls" and "Road signs, special vehicles and rail crossings".

Driving test

The duration of the test drive is approximately 20 minutes. It is not permitted for a driving instructor or accompanist to be present during the driving test. The test vehicle is provided by the novice driver himself. Within the framework of technical preparation of the vehicle, the novice driver is asked to demonstrate the use of different vehicle operating controls (e.g. headlights, windscreen wipers, hazard warning indicators, hand brake) and proper fastening of the safety belt.

During the test drive, the candidate must complete various (basic) driving manoeuvres, for example "Reversing in a straight line", "Changing lanes",

"Turning left and right" or "Stopping at controlled and uncontrolled crossroads and junctions".

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years, a certificate of advanced-level school education ("High School Diploma") and a medical certificate of fitness to work as a driving instructor. Professional qualification training with a scope of 60 hours must be completed and a written test must be passed. After taking up the profession, further tests must be taken every three years or else proof of regular further training must be furnished.

Auditing of driving schools

The Department of Motor Vehicles issues design guidelines and content specifications for the training offered by commercial driving schools. The training vehicles used by driving schools are subject to inspection every six months.

Croatia

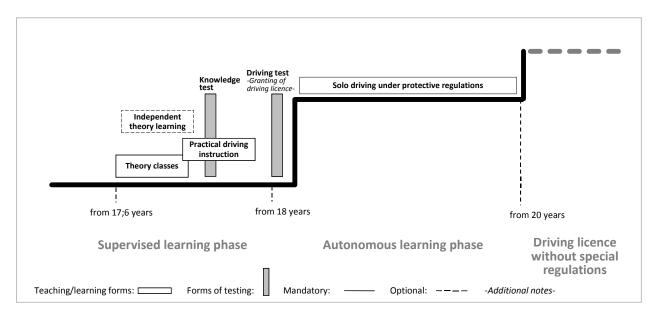


Fig. 5: System of novice driver preparation in Croatia

Overview

During the supervised learning phase, novice drivers attend mandatory theory classes and practical driving instruction under the supervision of a professional driving instructor (at the earliest from the age of 17 years and 6 months). They must pass a knowledge test and then a driving test (at the earliest from the age of 18 years). Passing of the driving test constitutes the entitlement to drive solo under protective regulations during a two-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for the commencement of mandatory theory classes and practical driving instruction and for admission to take the knowledge test is 17 years and 6 months. A minimum age requirement of 18 years applies for the driving test and the commencement of solo driving. A driving licence free of special regulations for novice drivers is granted 24 months after taking the driving test, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Novice drivers must present a medical certificate to confirm their mental and physical fitness to drive; this certificate must not have been issued more than 15 months previously.

Knowledge of first aid

The verification of knowledge relating to first aid measures is a separate element of the required driving licence tests. This "first aid test" is conducted by a doctor or a state-recognised member of staff of the health authorities. It is realised as an individual test and comprises both oral and practical components. Each candidate must answer one theoretical and one practical question correctly.

Duration and costs

The supervised learning phase must be spread over a period of at least three months. Usually, between three and six months pass before novice drivers commence solo driving. Protective regulations apply during the first 24 months after obtaining a driving licence. The average costs incurred by a novice driver to obtain a driving licence lie between 900 and 1,000 Euros.

Curriculum

The Ministry of the Interior specifies a binding curriculum for the process to obtain a class B driving licence

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 30 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

The typically used teaching/learning methods include lecture presentations, written and oral progress assessment, class discussions, experience reports by participants, the completion of test

sheets, demonstrations by the instructor, work in small groups, the integration of external persons into the classes and the setting of homework. Text books, slides, real videos, test sheets, technical teaching models, models of traffic and road infrastructures, and computer-based or online training programs are the teaching/learning media used.

Independent theory learning

Printed and electronic media are offered by both the authorities and commercial publishers to support independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 35 course units (of 45 minutes each) must be completed. Novice drivers typically take around three to five additional lessons beyond this minimum scope. Practical driving instruction is offered exclusively by commercial driving schools.

The vehicle used for practical driving instruction must be equipped with dual controls and additional mirrors, and must furthermore be marked as a learner vehicle. The typically used teaching/learning methods include driving on a practice ground, driving on flexible routes in real traffic, "commentary driving", demonstrations by the instructor, "independent driving", "script learning6" and self-assessments of driving skills by the novice driver himself. Practical driving instruction is realised either as individual instruction or as a combination of individual instruction and group classes.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, they must observe an absolute zero-alcohol rule. In addition, night-time driving (between 11 p.m. and 5 a.m.) is only permitted if the novice driver is accompanied by a person who is over 25 years of age. Further restrictions are lower speed limits for novice drivers and a ban on the use of motor vehicles with an engine power of more than 75 kW.

Sanctions in case of traffic offences include the obligation to repeat tests, driving bans between three and six months, and penalty points within the framework of the existing demerit points system.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test, in which a total of 38 weighted test items (true/false questions, multiple-choice questions, gap-fill questions requiring numerical inputs) must be answered. To pass, a score of at least 90 per cent is required, i.e. at least 108 of the maximum possible 120 points. The candidate is allowed 45 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective.

The test result appears on the screen at the end of the test, and the candidate is subsequently able to view information on the test items which were answered correctly or incorrectly, as well as the subject areas in which knowledge deficits remain, for a total of seven minutes. The pass rate for the knowledge test is 68 per cent.

Driving test

The driving test takes place on a practice ground and in real traffic. The total test duration is around 45 minutes, of which at least 30 minutes are assigned to the actual test drive. The driving instructor must sit in the front passenger seat during the test and assumes legal responsibility for the vehicle. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, the novice driver must demonstrate, for example, correct adjustment of the seat position, head-rests and mirrors, proper use of the safety belts, and performance of certain vehicle checks.

Basic driving manoeuvres are tested on a practice ground, where the candidate is required to perform the manoeuvres "Reversing through an alley of cones", "Reverse into a parking space at an oblique angle or parallel to the traffic", "Turning the vehicle to face the opposite way making use of a junction and with the aid of the reverse gear" and "Emergency braking".

The test drive follows a flexible route in real traffic and is expected to include both roads outside built-up areas (rural roads, high-speed roads, motorways) and urban roads (residential areas with speed limits of 40 or 50 km/h), so as to cover all the typical demands encountered by novice drivers. The selected route should enable assessment of the novice driver's skills in dealing with traffic situations of varying difficulty. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner. Further available aspects of test design are "independent driving",

⁶ With this teaching/learning method, the acquisition of complex skills is facilitated on the basis of explicitly described action sequences ("scripts"), which break an overall procedure down into its constituent steps.

where the examiner specifies a destination merely by way of very general instructions, and discussions of arising traffic situations.

When assessing the demonstrated abilities and behaviour, particular attention is paid to a defensive style of driving and to behaviour which shows that the novice driver gives due consideration to the safety of other road users. During the test drive, the driving test examiner observes the candidate's environmentally aware driving, traffic observation, vehicle positioning, speed regulation, signalling and timely deceleration and braking.

At the end of the test drive, the test result is communicated during a concluding discussion and the recorded assessment is explained. In addition, the novice driver receives a test report. If the test is not passed, three further hours of practical driving instruction must be completed. The pass rate for the driving test is 53 per cent.

Quality assurance

Training of driving instructors

A distinction is made between driving instructors who are entitled to give only practical driving instruction, and those who are also permitted to conduct theory classes. Prerequisites for admission to the profession include, among others, a minimum age of 24 years, prior possession of a class B driving licence for at least three years, and a Bachelor degree in the transport sciences.

Prospective driving instructors must complete professional qualification training. This training comprises theoretical and practical components, and includes also a 16-hour preparatory seminar during which driving and teaching competence is assessed. The professional qualification tests for driving instructors consist of written and oral theoretical sections, a driving test and sample demonstrations of theoretical and practical instruction. A medical examination is required every ten years to renew the driving instructor licence. Further training must be attended at least every four years.

Auditing of driving schools

When a driving school is opened, the test organisation ("Hrvatski Autoklub", HAK) inspects the classrooms, teaching materials and training vehicles. Later, annual audits are prescribed and serve to monitor not only the standard of the classrooms, teaching materials and training vehicles, but also the pedagogical quality of the theory classes and practical driving instruction, and the documentation of the driver training provided.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 21 years who have successfully completed a degree course in the transport sciences. Furthermore, candidates must have gained at least three years of practical experience as a driving instructor (for the vehicle category for which it is planned to work as a driving test examiner). The professional qualification tests for driving test examiners comprise a written and oral theoretical section, and a practical driving. Driving test examiners must attend further training at least every five years.

Quality assurance measures in test organisations

Quality assurance relating to the knowledge test consists of monthly evaluations of the test items by the quality control department of the test organisation. With regard to the driving test, audits are performed on the basis of an internal evaluation system. To this end, supervisors take part in regular driving tests, during which they are either present in the test vehicle or else follow the test vehicle to monitor the realisation of the test.

Further development

Various changes have been implemented in both training and testing to further develop novice driver preparation, and further changes are planned. This refers, for example, to realisation of the computer-based knowledge test, "independent driving" during the driving test, the role of environmentally aware driving, and the training of hazard recognition skills by way of computer-assisted simulations.

Czech Republic

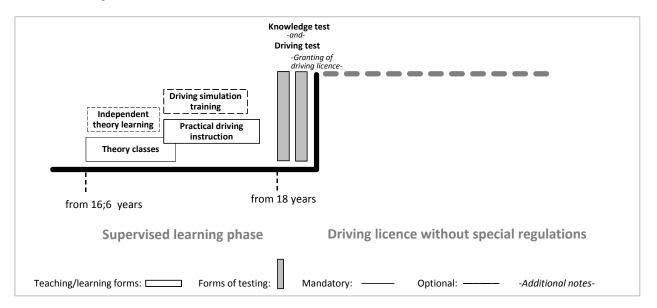


Fig. 6: System of novice driver preparation in the Czech Republic

Overview

During the supervised learning phase, novice drivers attend mandatory theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 16 years and 6 months). In this context, it is also possible to participate in optional driving simulation training. It is subsequently necessary to complete first a knowledge test and then a driving test; both tests are usually taken on the same day. If the driving test is passed (at the earliest from the age of 18 years), a full, unrestricted driving licence is issued, i.e. the system does not specify any protective regulations for novice drivers.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction in a driving school is 16 years and 6 months. The knowledge and driving tests may be taken from the age of 18 years. A driving licence free of special regulations for novice drivers can similarly be issued at the earliest from the age of 18 years.

Proof of fitness to drive

Novice drivers must pass eyesight and hearing tests within the framework of a medical examination by a doctor.

Knowledge of first aid

Two course units relating to first aid measures must be completed within the framework of the prescribed theory classes, and a further four course units within the framework of the prescribed practical driving instruction.

Duration and costs

On average, around two months pass from the commencement of driver training before novice drivers progress to solo driving. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of between 250 and 320 Euros.

Curriculum

The contents of the theory classes and practical driving instruction are based on a curriculum anchored in legislation. This curriculum specifies the number of course units to be devoted to each subject area and the order in which these topics are to be handled. The following subject areas are prescribed for the theory classes: "Road traffic regulations" (18 course units), "Vehicle control and maintenance" (2 course units), "Theory and principles of safe driving" (10 course units) and "First aid" (see "Knowledge of first aid" above), plus concluding revision of the overall content (4 course units). Practical driving instruction is divided into three consecutive training phases: "Driving on a practice ground and in low-density traffic" (7 course units), "Driving in medium-density traffic" (12 course units) and "Driving in high-density traffic" (9 course units). Further practical exercises are prescribed with regard to vehicle maintenance (2 course units) and first aid measures (see "Knowledge of first aid" above).

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 36 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor. The typically used teaching/learning methods include lecture presentations, class discussions, the completion of test sheets and the setting of homework. Text books, slides and technical teaching models are the teaching/learning media used.

Independent theory learning

Novice drivers prepare for the knowledge test not only within the framework of theory classes, but equally by way of independent theory learning. Printed and electronic teaching materials are offered by commercial publishers to support independent theory learning. The teaching/learning media for independent theory learning are based on the content specifications contained in the curriculum (see above) for theory classes. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 34 course units (of 45 minutes each) must be completed. Practical driving instruction is offered exclusively by commercial driving schools.

The typically used teaching/learning methods include driving on a practice ground and driving on standard and flexible routes in real traffic. The training vehicle must be equipped with dual controls (brake, accelerator and clutch pedals).

Driving simulation training

Participation in driving simulation training is voluntary within the framework of driving school training instruction; up to 10 course units of the mandatory practical driving instruction may be replaced by corresponding course units on a driving simulator. Driving simulation training is usually arranged before the commencement of practical driving instruction in real traffic. The driving simulators used generally consist of a steering wheel, a gear stick, a vehicle cockpit and a motion system. Simulation training serves to convey skills relating to traffic observation, vehicle operation, the performance of specific driving manoeuvres, compliance with traffic signs and regulations, and the mastering of risk

situations. Driving simulation training is offered by commercial driving schools, and is usually realised as individual instruction.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. A total of 25 differently weighted test items (multiple-choice questions, true/false questions) must be answered. To pass the test, it is necessary to score at least 43 of the maximum possible 50 points. The candidate is allowed 30 minutes to complete the test. The test item instructions are in part illustrated with graphics and photos.

The test contents cover subject areas such as "Road traffic regulation", "Further rules and regulations", "Vehicle control and maintenance", "Theory and principles of safe driving", "Instruction in first aid measures", "Road signs and signals" and "Crossroads and junctions". At the end of the test, the novice driver can ask to receive a written report. Feedback is in this way given on the total score achieved, the test items which were not answered correctly, and subject areas in which knowledge deficits were revealed. If the test is not passed, a repeat attempt is permitted at the earliest after five working days. The pass rate for the knowledge test is 70 per cent.

Driving test

The driving test takes place on a practice ground and in real traffic. The total test duration is at least 30 minutes, and 30 minutes are similarly intended to be assigned to the actual test drive. The driving instructor must be present in the vehicle during the driving test. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, novice drivers must check their seat position, the vehicle mirrors and the safety belts. They must furthermore know how to check, for example, the condition of the tyres, fluid levels, and the proper functioning of the brakes, steering, lights and turn indicators.

While on the practice ground at the beginning of the driving test, and subsequently in the course of the test drive in real traffic, the candidate must demonstrate the basic driving manoeuvres "Reversing", "Braking accurately to a stop", "Parking and leaving a parking space", "Stopping at the kerbside and driving off", "Passing other vehicles and obstacles" and "Turning to face the other direction using the forward and reverse gears".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

The test decision is based on the novice driver's overall performance during the driving test. He is expected to be able to handle the vehicle safely in every arising situation. If the novice driver's behaviour leads to a hazardous situation, or situations arise in which it becomes necessary for the driving test examiner to intervene, the test is deemed failed.

If the candidate was not successful, a concluding discussion is held at the end of the test drive; in addition to communication of the test result, this serves to provide feedback on the driving errors which were observed. No test report is completed during the test drive, and a report is thus not available for presentation to the novice driver. If the test is not passed, a repeat attempt is permitted at the earliest after five working days. The novice driver may also ask for a concluding discussion to be held even if the test was passed. The pass rate for the driving test is around 65 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 24 years, a certificate of secondary school education, and possession of a driving licence for at least three years. Proof of the physical and mental fitness to work as a driving instructor must be furnished by way of a medical certificate.

Driving instructors must complete professional qualification training. This training comprises 140 hours of theoretical instruction and 90 hours of practical instruction. It is furthermore possible to seek qualification as an instructor exclusively for theory classes or for practical driving instruction. Training is provided in private schools, with the instruction being given by professional driving instructors. The concluding test comprises written and oral theoretical sections, as well as a driving test and sample demonstrations of theoretical and practical instruction. If the tests are passed, a driving instructor licence is issued without time limitations. Further training is not prescribed.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection by the local traffic authorities. Later, further audits are performed at irregular intervals or whenever deemed necessary in response to particular circumstances; these audits serve to monitor not only the standard of the classrooms, teaching materials and training vehicles, but also the pedagogical quality of the theory classes and practical driving instruction provided.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 25 years who have held a driving licence for at least three years; furthermore, this driving licence must not have been withdrawn during the past five years. Prospective driving test examiners must not have been active as driving instructors.

Candidates must complete a special training programme and pass a concluding test. The licence to work as a driving test examiner is granted initially for a period of five years, and can subsequently be renewed for further periods of three years each.

Quality assurance measures in test organisations

The quality of knowledge and driving tests is monitored by the regional authorities and by the Ministry of Transport. External audits are performed as deemed necessary, and address the compliance with documentation obligations and the procedures for realisation of the knowledge and driving tests. A committee of experts is responsible for continuous evaluation of the validity of test items used in the knowledge test; where appropriate, this committee proposes the replacement of individual test items or the introduction of new items.

Denmark

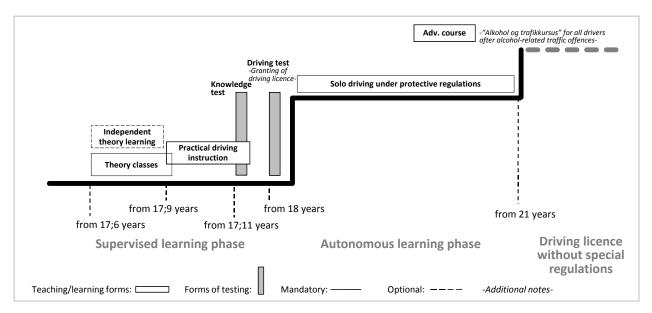


Fig. 7: System of novice driver preparation in Denmark

Overview

During the supervised learning phase, it is a mandatory requirement to attend theory classes (at the earliest from the age of 17 years and 6 months) and practical driving instruction (at the earliest from the age of 17 years and 9 months) in a commercial driving school. Subsequently, it is necessary to take first a knowledge test (at the earliest from the age of 17 years and 11 months) and finally a driving test (at the earliest from the age of 18 years). If the driving test is passed, the novice driver is entitled to proceed to a three-year autonomous learning phase under protective regulations before a full, unrestricted driving licence is issued.

Framework conditions

Minimum age requirements

The minimum age for attendance at theory classes is 17 years and 6 months. Practical driving instruction can begin at the earliest from the age of 17 years and 9 months. The earliest age at which the knowledge test may be taken is 17 years and 11 months, while the minimum age for the driving test and thus the commencement of solo driving under protective regulations is 18 years. A driving licence free of special regulations for novice drivers is obtained 36 months after taking the driving test, i.e. at the earliest from the age of 21 years.

Proof of fitness to drive

Driving licence applicants are required to undergo a medical examination and must present a corresponding medical certificate at the start of driving school training.

Knowledge of first aid

Novice drivers must complete a first aid course with a scope of seven hours.

Duration and costs

No data were received on the average duration of the supervised learning phase. The theory classes, however, must be spread over a period of at least two weeks. Successful completion of the driving test, and thus the granting of an initial driving licence, is followed by a 36-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence are equivalent to between 1,600 and 1,900 Euros.

Curriculum

Mandatory driving school training is based on an overarching curriculum, which provides for close mutual linking of the theoretical and practical training contents. The topics covered are: "The vehicle interior, vehicle equipment and documents", "Manoeuvres on a closed practice ground", "Manoeuvring properties of different vehicle types", "Behaviour of other road users", "Road conditions", "Basic regulations regarding driving", "Manoeuvres on the road", "Special risk situations in road traffic", "Manoeuvres on slippery surfaces" and "Preparation for the driving test".

The curriculum comprises 24 modules, to which corresponding course units ("lessons") of the mandatory theoretical and practical training are as-

signed. The 24 modules are thus structured into a total of 52 lessons, of which 28 are planned as group-based theory classes and 24 as practical driving instruction (4 lessons on a closed practice ground, 16 lessons in real traffic, and 4 lessons at a road safety training centre).

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 28 course units (of 45 minutes each) must be completed. The contents of the theory classes are specified in a curriculum (see above). Theory classes are offered by commercial driving schools and given by a professional driving instructor.

Independent theory learning

Novice drivers prepare for the knowledge test primarily within the framework of the theory classes. In addition, the authorities and commercial publishers offer text books to support independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Professional practical driving instruction in a commercial driving school is mandatory. At least 24 course units (of 45 minutes each) must be completed. The contents of the practical driving instruction are specified in a curriculum (see above). Practical driving instruction with a lay trainer is not possible.

Practical driving instruction begins on a practice ground and later includes also motorway and night-time driving. At the end of the practical driving instruction, i.e. before taking the driving test and commencing solo driving, novice drivers must attend a one-day special training course. This course comprises at least four course units of 45 minutes each and combines class-based instruction with driving exercises on a closed practice ground, during the course of which certain driving exercises are completed on both slippery and dry surfaces. The aim is to convey an understanding of fundamental physical dependencies relating to vehicle handling, the importance of adapting driving behaviour to the current road conditions, and vehicle control in critical traffic situations. It is not a general improvement of vehicle handling skills which is placed in the foreground, but rather introduction to the way a motor vehicle responds, so as to be able to avoid panic reactions. Novice drivers must document the completed course units in a logbook.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a probationary driving licence for a period of three years. Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations: A maximum of two points is tolerated during the threeyear autonomous learning phase, compared to a limit of three points for drivers with a full driving licence free of special regulations. If the driving licence is withdrawn during the autonomous learning phase, it cannot be re-issued until the novice driver has attended at least seven hours of additional theory classes and another eight hours of practical driving instruction; he must furthermore pass a second driving test, in which the demands placed on the candidate are higher than in the regular driving test (see "Driving test" below).

Advanced training course

In case of alcohol-related traffic offences, a special course on the effects of alcohol in road traffic ("Alkohol og trafikkursus") must be attended to regain a driving licence.

Forms of testing

Knowledge test

The knowledge test is realised either as a "paper-and-pencil" test or, in some test centres, on a computer. To pass, at least 20 of the total of 25 test items (true/false questions, multiple-choice questions) must be answered correctly. The candidate is allowed 25 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective. The pass rate for the knowledge test is 76 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is around 45 minutes, of which at least 25 minutes are assigned to the actual test drive. The driving test examiner takes the front passenger seat, and the driving instructor is permitted to be present in the vehicle during the driving test.

Within the framework of technical preparation of the vehicle, the novice driver must demonstrate that he is conversant with certain technical checks on the vehicle. To this end, he must be able to explain how the particular checks are performed. If this test item is not answered or not answered satisfactorily, it is recorded as an error. The check to be performed is selected by the driving test examiner drawing one of a series of test item cards.

During the test drive, "Parking", "Turning the vehicle to face the other way", "Driving off uphill", "Reversing around a corner", "Braking accurately to a stop" and "Emergency braking" may be tested as basic driving manoeuvres. The test drive follows a flexible route, which must be planned by the driving test examiner such that the contents of the curriculum (see above) can be tested and assessed. Test routes should cover roads both within and outside built-up areas, including cross-country roads and motorways. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

The driving test candidate is not expected to display routine or to perform all the driving tasks flawlessly. An error during the driving test is treated rather as indication that the necessary competence may not yet have been achieved with regard to a certain subset of the learning objectives defined in the curriculum. When assessing test performance. the driving test examiner must distinguish four categories of error: "Minor errors" are of no particular significance for the test result (e.g. exceeding the speed limit by less than 10 per cent), whereas "Errors" are likely to influence the test decision in conjunction with other factors. "Serious errors" already carry considerable individual weight and may contribute to a negative test decision in conjunction with other factors. "Very serious errors", finally, are decisive for the test result even if no other errors are observed (e.g. if the novice driver causes a situation in which other road users are endangered). A small number of minor errors does not automatically lead to failing of the test, as the intention is rather to assess the novice driver's test performance in its entirety.

At the end of the test drive, the test result is communicated during a concluding discussion. In addition, the novice driver receives a test report. The pass rate for the driving test is around 60 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years, possession of a class B driving licence for at least three years, and at least seven years of general school education. A health check and medical certificate are prescribed as proof of fitness to work as a driving instructor, and there must be no trafficrelated or criminal offences on the candidate's record.

Prospective driving instructors must complete corresponding training. This training comprises theoretical and practical components and is spread over a period of approximately 10 months. The professional qualification tests for driving instructors consist of written and oral sections, alongside sample demonstrations of theoretical and practical instruction. The medical checks must be repeated every five years in order to renew a driving instructor licence. It is furthermore a prerequisite that instruction has actually been provided on a regular basis.

Quality assurance measures in test organisations

Responsibility for the realisation of knowledge and driving tests lies with the police ("Danish National Police"). New test items for the knowledge test are also developed and tested by the police authorities. Test items may be integrated covertly into regular knowledge tests for evaluation purposes, but are there not taken into account in the assessment of test performance.

Further development

Denmark is in the process of introducing a computer-assisted knowledge test. To this end, the conventional test sheets are initially being transferred to a computer. Once the computer-based knowledge test has been introduced nationwide, the test items for a particular test are to be selected at random from the available catalogue.

Estonia

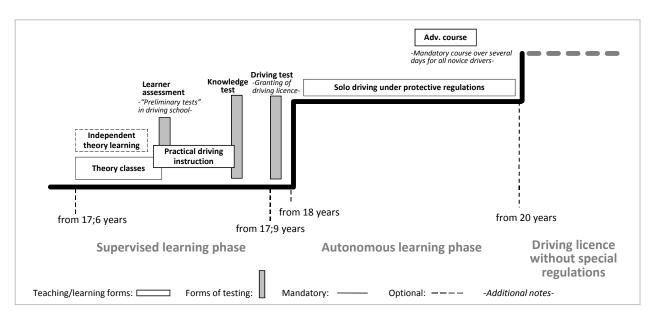


Fig. 8: System of novice driver preparation in Estonia – model with training exclusively in a driving school

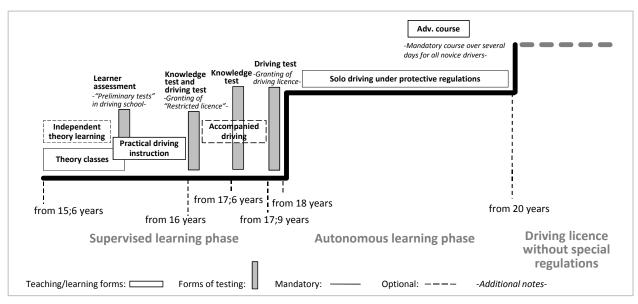


Fig. 9: System of novice driver preparation in Estonia – model with driving school training and learner driving licence

Overview

Novice drivers can choose between training exclusively in a driving school and a training model with additional accompanied driving:

- In case of training exclusively in a driving school, novice drivers attend mandatory theory classes and mandatory practical driving instruction with a professional driving instructor (at the earliest from the age of 17 years and 6 months). They must then pass first a knowledge test (at the earliest from the age of 17 years and 6 months) and fi-
- nally a driving test (at the earliest from the age of 17 years and 9 months). Passing of the driving test founds an entitlement to drive solo.
- As an alternative, novice drivers are able to obtain a learner driving licence ("Restricted Licence") at the earliest from the age of 16 years. After completing the prescribed scope of driving school training, they are then permitted to drive under the supervision of an accompanist until they reach the age of 18 years. To this end, an initial knowledge test and an initial driving test are realised by the

test organisation (at the earliest from the age of 16 years). To obtain a driving licence with the entitlement to drive solo, a second knowledge test (at the earliest from the age of 17 years and 6 months) and a second driving test (at the earliest from the age of 17 years and 9 months) must be passed after a phase of accompanied driving.

Under both models, novice drivers commence a two-year autonomous learning phase subject to certain protective regulations after the transition to solo driving. During this autonomous learning phase, it is a mandatory requirement for all novice drivers to attend an advanced training course ("driving safety training").

Framework conditions

Minimum age requirements

Novice drivers who wish to obtain a learner driving licence ("Restricted Licence") for accompanied driving, are able to commence driving school training already from the age of 15 years and 6 months; the corresponding initial knowledge and driving tests can be taken at the earliest from the age of 16 years. For novice drivers who choose to learn exclusively in a driving school, the minimum age for the commencement of training is 17 years and 6 months.

The minimum age for admission to take the second or regular knowledge test is for all novice drivers 17 years and 6 months; for the corresponding driving test, the candidate must have reached the age of 17 years and 9 months. The minimum age for the commencement of solo driving is for all novice drivers 18 years. A driving licence free of special regulations for novice drivers can be issued at the earliest after a 24-month autonomous learning phase, i.e. from the age of 20 years.

Proof of fitness to drive

Driving licence applicants must undergo an examination by a general practitioner to confirm their physical and mental fitness to drive. The medical certificate issued is valid for a period of ten years.

Knowledge of first aid

Novice drivers must complete a mandatory first aid course with a scope of 16 hours.

Duration and costs

No data were received on the average duration of the supervised learning phase, but the formal driving school training must extend over a period of at least six weeks. Protective regulations apply to novice drivers during the first 24 months after obtaining a driving licence; these regulations are lifted at the earliest from the age of 20 years. The average costs incurred by a novice driver to obtain a driving licence are equivalent to between 600 and 760 Euros.

Curriculum

A curriculum structures the contents of theory classes and practical driving instruction and establishes mutual references between the two in a total of 37 subject areas. The contents of the theory classes are divided into 19 topics, and a further 18 topics relate to the contents of practical driving instruction.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 41 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

Independent theory learning

A text book published by the driver instructors' association is available to novice drivers to support independent theory learning. The test items used in the knowledge test are publicly accessible (e.g. through the website of the test organisation) and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 32 course units (of 25 minutes each) must be completed. The practical driving instruction is offered by commercial driving schools. Driving practice under the supervision of a lay trainer is only possible in conjunction with a learner driving licence (see "Accompanied driving" below) and after completing the prescribed scope of driving school training.

Accompanied driving

Around five per cent of novice drivers make use of the option of accompanied driving (with a learner driving licence) from the age of 16 years. The prerequisite is that the novice driver has previously completed the mandatory theory classes and mandatory practical driving instruction with a professional driving instructor. It is furthermore necessary to pass an initial driving test (duration approximately 40 minutes, of which at least 25 minutes are assigned to a test drive) and an initial knowledge test. Subsequently novice drivers are permitted to drive exclusively under the supervision of a single designated accompanist. The accompanist must have held a class B driving licence for at least five years, and must not have any traffic offences on his driving record. To obtain a driving licence with the entitlement to drive solo (from the

age of 18 years), a second knowledge and driving test must be passed (see below).

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, the vehicle must be marked as a novice vehicle (with a green "maple leaf") and a speed limit of 90 km/h must be observed. Possible sanctions in case of traffic offences are driving bans and extension of the autonomous learning phase.

Advanced training course

An advanced training course ("driving safety training") is a mandatory requirement for all novice drivers and must be attended at the latest 23 months after passing the driving test and commencing solo driving. The course consists of a theoretical section, with a scope of six 45-minute units, and a practical section occupying a total of eight hours. The practical section devotes two hours to driving in the urban environment, along-side six hours of driving on a practice ground. The contents relate to topics such as environmentally aware driving and vehicle control on icy roads.

Forms of testing

Learner assessments

After completing the prescribed scopes of the mandatory driving school training, novice drivers must attend theoretical and practical learner assessments ("preliminary tests") organised by the driving school in which they are learning to drive.

Knowledge tests

The knowledge test is realised as a computerbased test. To pass, at least 26 of the total of 30 test items (multiple-choice questions, true/false questions, localisation tasks, numerical inputs, text inputs) must be answered correctly. The candidate is allowed 30 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective. The test contents cover the areas of "Road safety", "Traffic regulations", "Traffic psychology" and "Fitness to drive and safety equipment", as well as general topics such as insurance, first aid measures, etc. At the end of the test, the candidate receives a written report on the test result with indication of the total points score and the corresponding test decision; feedback is also provided on the test items which were answered correctly. If the test is not passed, a repeat attempt is possible at the earliest after one week. The pass rate for the knowledge test is 73 per cent.

The knowledge test to obtain a learner driving licence (see "Model with driving school training and learner driving licence" above) similarly comprises a total of 30 test items, of which at least 25 must be answered correctly to pass.

Driving tests

The driving test takes place in real traffic and on a practice ground. The total test duration is around 60 minutes, with around 10 minutes being assigned to the testing of basic driving manoeuvres (on a practice ground) and at least 45 minutes to the actual test drive in real traffic. The driving instructor is permitted to be present in the vehicle during the driving test.

Before starting, the novice driver must perform a safety check on the vehicle. He must demonstrate how to check the condition of the tyres, brakes, lights, turn indicators, etc., whether the prescribed safety equipment (e.g. warning triangle, first aid box) is present, and which precautions are necessary with regard to loading of the vehicle. In addition, the novice driver must give an assessment of his own abilities ("good" or "satisfactory") in respect of the categories "Vehicle operation", "Traffic observation and cooperation with other road users" and "Safe style of driving".

In the first section of the test (on the practice ground), the following basic driving manoeuvres must be performed: "Driving off uphill" and "Parking between two other vehicles" are elements of every test, while the driving test examiner chooses a third manoeuvre from "Turning the vehicle to face the other way", "Reversing in a straight line", "Reversing around a corner to the left or right" and "Negotiating a slalom course".

The test drive follows a flexible route in real traffic (within and outside built-up areas). In addition to concrete driving instructions, the driving test examiner specifies a general destination to which the novice driver must drive without detailed instructions ("independent driving").

For the assessment of test performance, the driving test examiner distinguishes three categories of driving error: "Single mistakes" (i.e. mistakes which constitute a deviation from the requirements, but do not hinder or impair other road users), "Repeated mistakes" (i.e. combinations of single mistakes) and "Serious mistakes" (i.e. errors which result in a hazardous situation). The driving test is immediately failed if any "serious mistake" is committed, even if this did not require the driving test examiner to intervene in the course of the test. Otherwise, the test decision is based on an overall impression of the candidate's competence in terms

of a defensive, foresighted, adapted and social style of driving. This also includes the examiner feeling safe throughout the driving test.

At the end of the driving test, the test result is communicated during a concluding discussion, and feedback is given on the examiner's overall impression of the test drive, the most important driving errors observed, and positive aspects of the test performance. The novice driver only receives an additional test report if the test was failed; this report is sent to the unsuccessful candidate by e-mail. If the test is not passed, a repeat attempt is possible at the earliest after one week. The pass rate for the driving test is 57 per cent.

In the case of the driving test to obtain a learner driving licence (see "Model with driving school training and learner driving licence" above), the test drive in real traffic must last at least 25 minutes.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 21 years and possession of a driving licence for at least three years. With regard to professional qualifications, a distinction is made between driving instructors who are only permitted to provide practical driving instruction, and those who are entitled to give both theory classes and practical driving instruction. The latter must hold a certificate of advanced-level school education (university entrance qualification), whereas the former is only required to have completed general secondary education. Depending on the precise qualification sought, it is necessary to complete additional (university-level) further training lasting one year (practical instruction only) or three years (theory classes and practical instruction).

Professional qualification training is mandatory. Practical driving instructors complete nine months of theoretical and practical training, whereas the theoretical and practical training for instructors who are also eligible to give theory classes covers three years. Both qualification paths include training components in a driving school and professional qualification tests. The driving instructor licence is granted for a period of five years, but can be renewed if the holder attends corresponding further training measures; 160 hours of further training are prescribed over the period of five years. The contents of further training are geared to the instructor's individual training needs.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 25 years who have successfully obtained a university degree and have held a driving licence for at least eight years. A four-week course of mandatory training is followed by a four-month probationary period in the test organisation. The concluding theoretical and practical tests are taken at the end of the probationary period. The driving test examiner licence is valid for five years, and approximately two days of further training must be attended each year.

Quality assurance measures in test organisations

Knowledge tests and driving tests are realised by the state-certified "Estonian National Vehicle Registration Centre" ("ARK"). Quality assurance measures include internal evaluations of knowledge and driving test realisation on the basis of test guidelines and the relevant ISO standards. In addition, external audits are conducted annually.

Finland

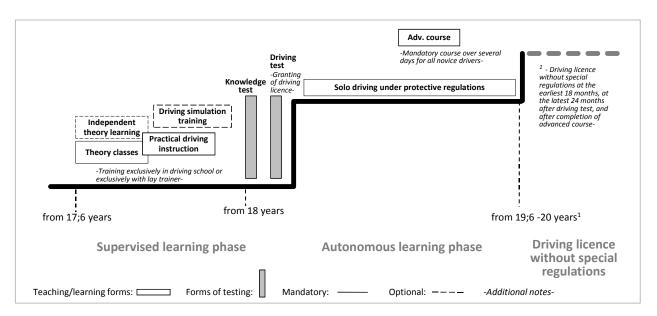


Fig. 10: System of novice driver preparation in Finland

Overview

During the supervised learning phase, novice drivers complete mandatory theoretical and practical driving instruction (at the earliest from the age of 17 years and 6 months). They are permitted to choose, however, whether they wish to attend theory classes and practical driving instruction in a commercial driving school, or else train exclusively under the supervision of a close family relative. It is subsequently necessary to take first a knowledge test and finally a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo under protective regulations during an autonomous learning phase lasting up to two years. During this autonomous learning phase, it is a mandatory requirement for all novice drivers to attend an advanced training course ("safe driving course") at the earliest six months and at the latest two years after taking the driving test. Successful completion is a prerequisite for the granting of a driving licence free of special regulations for novice drivers - in case of participation at the earliest possible time, a driving licence free of special regulations for novice drivers can already be obtained after 18 months.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction is 17 years and 6 months. The knowledge and driving tests can be taken from the age of 18 years, which is thus also the minimum age for transition to the autonomous learning phase. A driving licence free of special regulations for novice drivers can be granted at the earliest at the age of 19 years and 6 months, insofar as the mandatory advanced training course ("safe driving course") is attended at the earliest possible time.

Proof of fitness to drive

Driving licence applicants must present a certificate of a medical examination when applying for a driving licence.

Duration and costs

No data were received on the average duration of the supervised learning phase. Protective regulations apply after first obtaining a driving licence; these protective regulations are lifted at the earliest after a period of 18 months. The average costs incurred by a novice driver to obtain a driving licence amount to around 1,500 Euros.

Curriculum

The contents of the theory classes and practical driving instruction, and likewise of the knowledge and driving tests, are based on an overarching curriculum; the same scope of driving competence acquisition is also prescribed for novice drivers who choose to learn under parental supervision. The curriculum divides training into three phases. During the first phase, the novice driver develops the skills, knowledge and attitudes which are necessary to be able to drive safely during the subsequent intermediate phase, without endangering either his own vehicle or other road users. The first

phase comprises four thematic modules: "The driver in road traffic", "Driving in traffic situations", "Independent driving" and "Driving under difficult conditions", each of which is assigned corresponding theoretical and practical training components. The intermediate phase, during which solo driving is permitted under protective regulations, begins with passing of the knowledge and driving tests. The third phase of the training curriculum (see "Advanced training course" below) follows at the earliest after a further six months.

Teaching and learning forms

Theory classes

For novice drivers who choose professional driving school training, it is a mandatory requirement to attend theory classes in a commercial driving school. At least 20 course units (of 45 minutes each) must be completed. Alternatively, the prescribed contents may also be conveyed by way of an equivalent scope of private lessons with a lay trainer (e.g. a parent); around 10 to 20 per cent of novice drivers make use of this possibility.

Independent theory learning

Text books are offered by commercial publishers to support the novice driver in his independent theory learning. The test items used in the knowledge test are not publicly accessible.

Practical driving instruction

Practical driving instruction may be taken either with a professional driving instructor or with a correspondingly authorised lay trainer (e.g. a parent). At least 30 course units (of 25 minutes each) must be completed.

Around 10 to 20 per cent of novice drivers choose to learn to drive under the supervision of a lay trainer. During lay training, the same person must accompany the novice driver on every drive; further passengers are not permitted. A lay trainer must be at least 21 years old and must have held a class B driving licence for at least three years. He must furthermore be in possession of a training permit issued by the police. The vehicle used must be marked accordingly, and must be equipped with dual controls and double mirrors.

The possibility for practical driving instruction under the supervision of a lay trainer also enables driving practice to be acquired over a longer period. In this context, novice drivers typically record around 1,000 kilometres of driving.

Driving simulation training

Driving in the dark is a prescribed element of the Finnish curriculum (see above). The corresponding

course units may also be completed in a driving simulator instead of in real traffic.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. This period may be reduced to 18 months if the mandatory advanced training course ("safe driving course") is attended within 18 months and if no traffic offences have been recorded against the novice driver. A first minor traffic offence results in a written reprimand. If a second offence is committed within a year, or a third offence within two years, the driver is summonsed to attend a personal meeting with a police officer. Possible further consequences are a driving ban of between at least one and a maximum of six months. In addition to a driving ban, the driver may be required to repeat the knowledge and driving tests.

Advanced training course

All novice drivers must attend a mandatory advanced training course ("safe driving course") with professional driving instructor during the autonomous learning phase. This course can be completed at the earliest six months after taking the driving test and commencing solo driving, and must be attended at the latest within two years. If the advanced training course is completed by the 18th month of the 24-month autonomous learning phase, the duration of this phase is reduced to 18 months. The advanced training course is spread over two days and comprises a total of five hours of class-based theoretical instruction and four hours of practical driving exercises. These exercises include a three-hour training session on a practice ground, where the thematic focus is placed on hazard perception. In addition, a "feedback drive" is conducted in real traffic, enabling the driving instructor to give the novice driver a personal assessment of the strengths and weaknesses in his driving behaviour.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 49 of the total of 60 test items (multiple-choice questions, true/false questions) must be answered correctly; in addition, no more than 8 answers to the 50 image-based questions and no more than 3 answers to the 10 text-based questions may be incorrect. The candidate is allowed 30 minutes to complete the test. A maximum of ten seconds is allowed for the answering of image-based test items, and a maximum of 30 seconds for the answering of text-

based items. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective. At the end of the test, the candidate receives a written report on the test result, with feedback on the total points score attained, the test items which were not answered correctly, and subject areas in which knowledge deficits were revealed. The pass rate for the knowledge test is 80 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is 45 minutes, of which 30 minutes are assigned to the actual test drive. The driving test examiner sits in the front passenger seat during the driving test. The driving instructor is permitted to be present in the vehicle.

Within the framework of technical preparation of the vehicle, the novice driver must demonstrate correct adjustment of his seat position, as well as adjustment of the mirrors, safety belt and headrest. In addition, one of the following vehicle checks is chosen at random by the driving test examiner: "Condition of the tyres, steering and brakes", "Oil and other fluid levels (e.g. coolant, windscreen washers)", "Proper functioning of the lights and reflectors", "Proper functioning of the turn indicators and hazard warning lights".

In the course of the test drive, the candidate must perform at least two of the following basic driving manoeuvres, one of which must involve use of the reverse gear: "Driving off uphill with or without use of the parking brake", "Reversing in a straight line", "Forward or reverse parallel parking on the level, uphill or downhill", "Turning the vehicle to face the opposite way, using forward and reverse gears".

The test drive follows a flexible route. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, and must also drive independently to a specified destination ("independent driving"). Test assessment is based on the candidate's overall test performance. to which end the driving test examiner gives separate consideration to the following observation categories: "Observation" and "Judgement" of traffic situations, "Speed adaptation", "Interaction" with other road users, "Correct vehicle positioning" and "Compliance with traffic rules". The driving behaviour displayed by the candidate in different situations is noted on the test report and assigned one of the evaluations "Good performance" (i.e. particularly positive or above-average driving behaviour), "Error" (i.e. behaviour in a manner which increased the general risk of accident, but was not in itself immediately dangerous) or "Conflict" (i.e. behaviour leading to a situation in which other road

users were forced to react to avert danger or else the driving test examiner was required to intervene).

At the end of the test drive, the test report is handed over and the test result is communicated during a concluding discussion; in addition, the candidate receives feedback on strengths and weaknesses revealed during the driving test. The discussion also addresses the self-assessment given by the candidate at the beginning of the driving test. Within the framework of this selfassessment, the novice driver is asked to grade various aspects of his driving abilities (e.g. vehicle control, mastering of traffic situations, hazard recognition and avoidance, and environmentally aware driving) on a five-tier scale (from "excellent" to "poor"). The driving test examiner then uses the same categories and scale to assess the subsequent test performance. Possible inconsistencies between the two perspectives are discussed after notification of the test result; this serves merely as feedback and does not affect the outcome of the test. If the test is not passed, the novice driver must attend at least two further sessions of practical driving instruction with a professional driving instructor. The test can be repeated at the earliest after three days. The pass rate for the driving test is 75 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years, possession of a class B driving licence for at least three years, the completion of either advanced-level school education (constituting the entitlement to study at a university) or else three years of vocational school training, and a medical certificate of fitness to work as a driving instructor.

Driving instructors must complete professional qualification training with a scope of 2,700 hours spread over a period of at least 18 months. This training comprises theoretical and practical instruction under the supervision of an experienced driving instructor. A concluding test is similarly prescribed and comprises a 60-minute written theory section and a 45-minute test drive. In addition, 45-minute sample demonstrations of theoretical and practical instruction must be given. Further training is not mandatory, but various voluntary further training measures are offered by the driving instructors association.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 22 years. Candidates

must have completed driving instructor training and must have gained at least one year of practical experience in the profession. A professional qualification test must be passed after at least two weeks of corresponding training.

Quality assurance measures in test organisations

Tests are conducted by a state-certified private test organisation, the "Finnish Vehicle Administration" ("AKE"). The test procedures for the knowledge and driving tests are subject to periodic quality audits. Quality assurance measures relating to the knowledge test involve reviews of the pass rates several times per year, as well as monitoring of the difficulty index of the test items used. Newly developed items may be tested openly within the framework of the regular knowledge test.

Florida

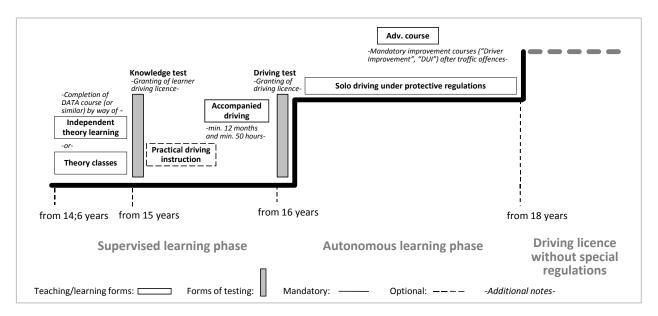


Fig. 11: System of novice driver preparation in the US state of Florida (model for novice drivers under 18 years)

Overview

During the supervised learning phase (at the earliest from the age of 14 years and 6 months), all novice drivers are first required to attend a course focusing on the effects of alcohol and drug abuse on driving behaviour (e.g. "TLSAE" - "Traffic Law and Substance Abuse Education", "DATA" -"Drugs, Alcohol, Traffic, Awareness", "First-Time Driver"); courses are offered either in the form of theory classes or as an online training program. The completion of such a course and passing of a knowledge test are prerequisites for the issuing of a learner driving licence ("Learner's Permit/ Restricted License"). With this learner driving licence, novice drivers are permitted to take practical driving instruction under the supervision of a lay trainer or professional driving instructor, and to make use of accompanied driving to gain practical driving experience (at the earliest from the age of 15 years). After an accompanied driving phase of at least 12 months (for novice drivers under 18 years), it is possible to take a driving test which, if passed, entitles the novice driver to drive solo under protective regulations ("Intermediate License"). A driving licence free of special regulations for novice drivers ("Full Privilege License") can be granted after a two-year autonomous learning phase or from the age of 18 years.

Framework conditions

Minimum age requirements

A "DATA", "TLSAE" or "First-Time Driver" course can be attended at the earliest from the age of 14 years and 6 months. The minimum age for admission to the knowledge test and issuing of a learner driving licence ("Learner's Permit/Restricted License") is 15 years. The earliest age at which the driving test can be taken and thus solo driving under protective regulations can begin (with an "Intermediate License") is 16 years. A driving licence free of special regulations for novice drivers ("Full Privilege License") is issued from the age of 18 years.

Proof of fitness to drive

Novice drivers must pass an eyesight test at the time of the knowledge test. Furthermore, they must furnish proof of adequate hearing, and must present a self-report on possible health-related impairments of their fitness to drive.

Duration and costs

For novice drivers under 18 years, the supervised learning phase lasts a minimum of 12 months before the driving test can be taken (at the earliest from the age of 16 years) and solo driving under protective regulations may begin. Successful completion of the driving test is followed by an autonomous learning phase, which lasts until the novice driver reaches the age of 18 years, i.e. a period of up to 24 months. No data were received on the costs incurred to obtain a driving licence.

Teaching and learning forms

Theory classes

Attendance at a course focusing on the effects of alcohol and drug abuse on driving behaviour (e.g. "TLSAE" – "Traffic Law and Substance Abuse Education", "DATA" – "Drugs, Alcohol, Traffic, Awareness", "First-Time Driver") is mandatory. Such courses are offered in commercial driving schools, at state schools, and in the form of an online course in conjunction with independent theory learning (see below).

Independent theory learning

The test items used in the knowledge test are not publicly accessible, but similar test items are available to aid test preparation. The mandatory "DATA", "TLSAE" or "First-Time Driver" course may be completed by way of an online training program, which is thus realised in the sense of independent theory learning.

Practical driving instruction

Practical driving instruction with a professional driving instructor is not mandatory, but nevertheless recommended. Corresponding training is offered by commercial driving schools.

In case of practical driving instruction under the supervision of a lay trainer, the latter must be at least 21 years old and must himself be in possession of a class E (non-commercial vehicle) driving licence. The driver licensing authority publishes guidelines which are intended to serve as a basic framework for driving practice in connection with practical driving instruction by a lay trainer (or accompanied driving). Novice drivers must record at least 50 hours of practical driving experience (see "Accompanied driving" below) as a prerequisite for admission to the driving test.

Accompanied driving

Novice drivers under 18 years of age must have held a learner driving licence for at least 12 months before they are permitted to take the driving test and commence solo driving. The earliest age for the issuing of such a learner driving licence, and thus for the commencement of practical instruction and the longer-term acquisition of practical driving experience, is 15 years. The prerequisite is that the novice driver must have previously attended a mandatory "DATA", "TLSAE" or "First-Time Driver" course and passed the knowledge test.

The lay trainer or accompanist must be at least 21 years of age and must possess a valid driving licence for non-commercial vehicles. He must sit in the front passenger seat during all practice drives. During the first three months of accompanied driving, novice drivers are only permitted to drive dur-

ing daylight hours, i.e. between 6 a.m. and 7 p.m. After the first three months, driving is permitted between 6 a.m. and 10 p.m.

Accompanied driving must reach a scope of at least 50 hours of driving, of which at least 10 hours must be driving at night or in the dark. The novice driver is permitted to drive exclusively with an accompanist for a period of 12 months (or until reaching the age of 18 years). As a prerequisite for admission to the driving test, the accompanist must give a written declaration that the prescribed number of driving hours was actually completed; the keeping of a logbook to document driving practice is recommended, but not prescribed.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence valid for a period of 12 months or until the holder reaches the age of 18 years. During this period, novice drivers under 17 years are only permitted to drive at night (between 11 p.m. and 6 a.m.) if they are accompanied by a person who is over 21 years of age and himself in possession of a driving licence, unless they are driving to or from their place of employment. The same rule applies for novice drivers over 17 years for the period between 1 a.m. and 5 a.m.

Up to the age of 21 years, a lower maximum permissible blood alcohol content of 0.02 per cent applies when driving. In case of alcohol-related traffic offences, it may be stipulated that a breath alcohol detector in the form of an ignition interlock be fitted to the driver's vehicle for a period of up to a year. Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations: If a driver under 18 years accumulates six or more points within 12 months, use of the driving licence is limited to journeys in connection with their employment.

Advanced training course

Drivers may be required to attend an improvement course ("Advanced Driver Improvement Course") if demerit points are received for traffic offences. In case of traffic offences in connection with alcohol or drugs, the driving licence may be withdrawn and the requirement to attend a special improvement course ("Substance Abuse Course") may be imposed.

Forms of testing

Knowledge test

The knowledge test is realised as a computerbased test. A total of 40 test items (multiple-choice questions) must be answered, with 20 items each relating to road signs ("Road Sign Test") and driving rules ("Road Rules Test"). To pass the knowledge test, at least 30 test items must be answered correctly; furthermore, at least 15 correct answers must be achieved in each of the two sections on road signs and rules. The candidate is allowed 50 seconds for the answering of each individual test item.

Driving test

At the beginning of the driving test, the driving test examiner checks the technical condition of the test vehicle, which is provided by the novice driver himself. Over the course of the driving test, the novice driver is required to accomplish certain driving tasks and to demonstrate certain forms of driving behaviour. This includes, for example, smooth and correct gear-changing, traffic observation and choice of the correct lane when approaching a crossroads, observance of the rules of rightof-way with regard to other road users (vehicles, pedestrians, emergency services, etc.), compliance with road signs, safe overtaking and passing, proper use of the road lanes, maintaining a safe distance behind other vehicles, and correct seating posture and use of the steering wheel. Certain basic driving manoeuvres must also be demonstrated during the driving test (e.g. three-point turn, parking, stopping and driving off uphill, emergency braking, reversing, turning at a junction with appropriate use of signals). Immediately after the driving test, the test result is communicated during a concluding discussion, which also serves to explain any driving errors observed.

Quality assurance

Training of driving instructors

The prerequisite for admission to the profession of driving instructor in a commercial driving school is that no traffic offences have been entered on the person's driving record during the past three years. Prospective driving instructors must submit a written application for a driving instructor licence to the responsible traffic authority, take a special test ("Driver Performance Analysis System") and complete a training course ("Driving Instructor Training Course") with a scope of 32 hours.

France

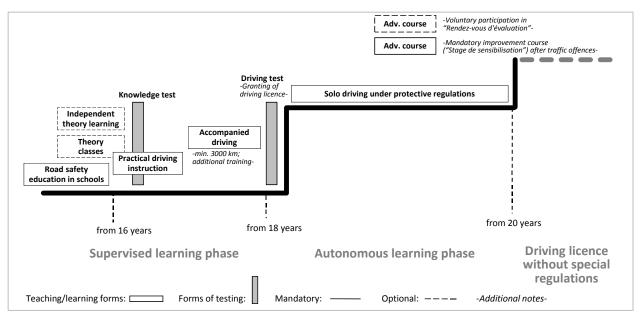


Fig. 12: System of novice driver preparation in France – "Apprentissage anticipé de la conduite (AAC)" model

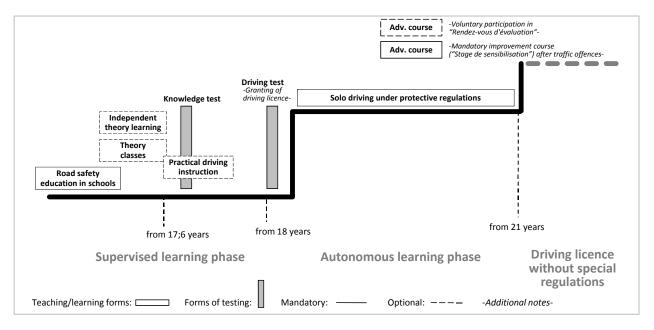


Fig. 13: System of novice driver preparation in France – model with training exclusively in a driving school

Overview

As prerequisites for later admission to driver training, future novice drivers already acquire certain certificates within the framework of road safety education at school. After completing this school-based road safety education (non-pupils must have attended equivalent alternative training measures), novice drivers who wish to obtain a class B driving licence initially prepare for a knowledge test by way of independent theory learning or optional theory classes. It is possible to choose

between training exclusively in a driving school and the training model "Apprentissage anticipé de la conduite" ("AAC"), which includes an additional phase of accompanied driving:

In case of training exclusively in a driving school, novice drivers complete mandatory practical driving instruction with a professional driving instructor (at the earliest from the age of 17 years and 6 months); additional or even exclusive lay driver training is legally permissible, but this possibility is seldom used in practice. After passing a driving test (at the earliest from the age of 18 years), novice drivers receive a driving licence which entitles them to drive solo under protective regulations. After a further three-year autonomous learning phase, a driving licence free of special regulations for novice drivers is granted.

Novice drivers who choose to participate in the "AAC" model must similarly first complete mandatory practical driving instruction in a driving school (at the earliest from the age of 16 years). This is followed by a phase of accompanied driving covering a period of at least 12 months, up to a maximum of 36 months, before the novice driver is permitted to take the driving test (at the earliest from the age of 18 years) and commence solo driving under protective regulations. A driving licence free of special regulations for novice drivers is granted after a further twoyear autonomous learning phase.

Framework conditions

Minimum age requirements

The standard minimum age for the commencement of practical driving instruction and for admission to take the knowledge test is 17 years and 6 months. Under the "AAC" model, it is possible to commence practical driving instruction and take the knowledge test already from the age of 16 years. In both cases, a minimum age of 18 years applies for admission to take the driving test and thus for the commencement of solo driving under protective regulations. A driving licence free of special regulations for novice drivers can be issued at the earliest after a 36-month autonomous learning phase (24 months under the "AAC" model), i.e. at the earliest from the age of 21 or 20 years, respectively.

Proof of fitness to drive

Driving licence applicants must pass an eyesight test within the framework of the driving test.

Duration and costs

Under the "AAC" model, the supervised learning phase must cover a period of at least 12 months. In the case of training exclusively in a driving school, the duration of the supervised learning phase is around six months. The transition to solo driving is followed by an autonomous learning phase lasting 36 months after training exclusively in a driving school or 24 months in case of participation in the "AAC" model. The average costs incurred by a novice driver to obtain a driving licence amount to around 1,200 Euros.

Curriculum

A training curriculum ("Programme National de Formation à la Conduite" – "P.N.F") describes learning objectives relating to different aspects of knowledge and attitudes to driving. It can be divided into the following main subject areas: "Becoming a driver" ("Devenir automobiliste"), "Planning for a journey" ("Gérer son déplacement"), "Critical driving situations" ("États dégradés du système") and "Understanding the phenomenon 'automobile" ("Comprendre le phénomène automobile"). The curriculum defines a total of 13 subordinate topics within these subject areas, each of which is assigned concrete learning objectives.

Teaching and learning forms

Theory classes

It is not a mandatory requirement to attend theory classes in a commercial driving school; on the other hand, certain courses are prescribed within the framework of general school education (see "Road safety education in schools" below). Almost all novice drivers make use of the possibility to take optional theory classes and generally attend between 10 and 15 classes.

The typically used teaching/learning methods in theory classes include class discussions, the completion of test sheets, the setting of homework and the use of training films on different topics. Text books, slides, real videos and test sheets are the teaching/learning media used.

Independent theory learning

Novice drivers prepare for the knowledge test both within the framework of optional theory classes and by way of independent theory learning. Commercial publishers offer text books/manuals, computer-based and online training programs and DVDs as teaching/learning media to support novice drivers in their independent theory learning. The test items used in the knowledge test are not publicly accessible.

Road safety education in schools

Measures relating to road safety in general, and to the acquisition of driving competence in particular, are anchored in an overarching framework concept ("Continuum éducatif") which is also integrated into general school education. Over the course of their school education, pupils receive various certificates for participation in road safety training measures, e.g. the primary school certificate "Attestation de première éducation à la route – APER" ("Certificate of initial traffic education"), and the certificate "Attestation scolaire de sécurité routière de premier niveau – ASSR1" ("First-level certificate of road safety education") obtained at the age of 14

years. The corresponding second-level certificate "Attestation scolaire de sécurité routière de deuxième niveau – ASSR2" is a prerequisite to be entitled to apply for a class B driving licence and enrol at a driving school. To obtain this certificate, the pupils take a knowledge test, in which at least 10 of the total of 20 multiple-choice test items (illustrated by way of video sequences) must be answered correctly.

Practical driving instruction

Practical driving instruction with a professional driving instructor is optional. It is nevertheless usual to learn under the supervision of a professional driving instructor in a commercial driving school; lay driver training is legally permissible, but is seldom practised due to the requirement for the training vehicle to be equipped with dual controls. When training is taken in a driving school, at least 20 course units (of 60 minutes each) must be completed. On average, novice drivers actually complete around 30 course units. The typically used teaching/learning methods include driving on standard routes in real traffic and "independent driving". Practical driving instruction is usually realised as individual instruction; less than 10 per cent of novice drivers make use of group-based training offers. The training vehicle must be equipped with pedals for dual control, a second inside rear-view mirror and an additional wing mirror on the righthand side.

Accompanied driving

Around 28 per cent of novice drivers make use of the opportunity to drive under the supervision of an experienced accompanist from the age of 16 years within the framework of the "AAC" model. The phase of accompanied driving must cover a period of at least 12 months, up to a maximum of 36 months, during which the novice driver must accumulate at least 3,000 kilometres of driving practice. It is furthermore a mandatory requirement to attend two evaluation meetings ("Rendez-vous pédagogiques") lasting between two and three hours each (after 1,000 and after 3,000 kilometres); these meetings comprise a discussion between the novice driver, the professional driving instructor and the accompanist, and a joint drive in real traffic.

The prerequisite for participation in accompanied driving is that the novice driver has previously

⁷ If the novice driver has not gained the certificates ASSR 1 and ASSR 2 within the framework of general school education, the equivalent certificate "Attestation de sécurité routière" – "ASR"

("Certificate of road safety") must be obtained before commencing driver training.

passed the knowledge test and has already completed at least the prescribed minimum of 20 course units of practical driving instruction. In addition, the driving instructor must provide confirmation that the novice driver has acquired an adequate level of driving skills. Within the framework of accompanied driving, a reduced speed limit must be observed on certain roads (e.g. the speed limit on motorways is reduced to 110 km/h from the otherwise applicable 130 km/h); driving abroad is forbidden. All driving done must be recorded in a logbook, and additional insurance cover must be obtained. The vehicle must be marked as a learner vehicle and equipped with an additional mirror.

The accompanist must be at least 28 years old and must have held a class B driving licence for at least five years. He must furthermore be prepared to take part in the prescribed evaluation meetings, and must have no criminal or serious traffic offences on his record. It is possible to nominate more than one person to serve as accompanist.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of three years. For participants in the "AAC" model, this period is reduced by 12 months and is thus only two years. Novice drivers with a provisional driving licence must observe certain reduced speed limits: They must not exceed 110 km/h on roads on which speeds up to 130 km/h are allowed, 100 km/h on roads with a normal limit of 110 km/h, and 80 km/h on roads with a normal limit of 90 km/h. The vehicle must furthermore be marked as a novice vehicle.

Within the framework of the generally applicable demerit points system, stricter regulations apply for novice drivers. They receive a "credit" of only six points (compared to the 12 points granted to experienced drivers) and must already attend an improvement course if three of these points are lost; the loss of all six points leads to a driving ban. The sanctions imposed for traffic offences include monetary fines and driving bans; it is also possible for the driving licence to be withdrawn entirely, with the result that driving school training and the corresponding driving licence tests must be repeated to regain the entitlement to drive.

Advanced training course

Novice drivers are offered a voluntary evaluation meeting ("Rendez-vous d'évaluation" – "RVE") between six and twelve months after commencing solo driving. The total duration corresponds to one day, but the meeting can also be spread over two dates. The first part of the meeting consists of an evaluation of the participants' driving behaviour.

The second part then addresses their motivation and attitudes in respect of safe participation in road traffic, and awareness for traffic hazards and risk situations. Insurance incentives serve to encourage course participation.

Drivers may be required to attend a two-day improvement course ("Stage de sensibilisation") whenever points are deducted for traffic offences.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test (using a special input device for each candidate). To pass, at least 35 of the total of 40 test items (true/false questions, multiple-choice questions) must be answered correctly. The candidate is allowed a total of 90 minutes to complete the test, but no more than 20 seconds for each individual test item. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective. The vehicle turn indicators and traffic lights may be animated in the visualisations.

At the end of the knowledge test, the novice driver receives a written report on the test result, which also contains feedback on the subject areas in which test items were not answered correctly. If the knowledge test is not passed, a repeat attempt is permitted at the earliest after two weeks. After three unsuccessful attempts, the novice driver is required to attend theory classes. The pass rate for the knowledge test is 69 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is around 35 minutes, of which at least 25 minutes are assigned to the actual test drive. The driving test examiner sits in the front passenger seat during the driving test; the driving instructor must be present in the vehicle.

Within the framework of technical preparation of the vehicle, novice drivers must answer two questions relating to vehicle checks, one inside and one outside the vehicle; the answers can be given either verbally or by demonstrating the required action sequence.

During the test drive, two of the following basic driving manoeuvres must be tested (at least one of which must involve use of the reverse gear): "Reversing in a straight line", "Reversing around a corner", "Parking in a parking space", "Parking at an oblique angle", "Reverse parking", "Turning the vehicle to face the other direction" and "Braking accurately to a stop". The driving test examiner

selects the basic driving manoeuvres to be performed.

The test drive follows a flexible route in real traffic and covers roads both within and outside built-up areas. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, or else he drives independently to a specified destination ("independent driving"). The test may also include a discussion of particular driving and traffic situations.

For the observation and assessment of test performance, the driving test examiner takes into account the following competence categories: "Vehicle operation", "Information acquisition", "Analysis and decision-making", "Communication", "Speed adaptation", "Control of the vehicle", "Use of the road" and "Safe distance to other road users". Driving errors are distinguished as either "minor errors", which are not considered safety-relevant and are thus not recorded on the test report, "serious errors", which are not immediately safety-relevant, and "critical errors", which endanger the safety of the novice driver's own vehicle or that of other road users. The driving test is deemed failed if any "critical error" is observed, or else more than one "serious error" is noted in any single competence category.

The test result is communicated to the novice driver at the end of the test drive. The test report is either handed over immediately or else sent to the candidate by post. If the test was not passed, a repeat attempt is possible at the earliest after two weeks. The pass rate for the driving test is 56 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 22 years, a certificate of secondary school education and possession of a driving licence for at least three years. Furthermore, proof of physical health must be furnished by way of a medical examination performed by a doctor.

Oral and written entry tests must be passed as a prerequisite for admission to mandatory driving instructor training. This training lasts around five to six months and comprises theoretical and practical components with a total scope of at least 630 hours. A concluding test is similarly prescribed and consists of oral and written theory tests, a 25-minute driving test with "commentary driving" and sample demonstrations of both theory classes and practical driving instruction. The driving instructor

licence is issued for a limited period only and must be renewed every five years; this renewal is subject to a new medical examination and confirmation that no criminal or traffic-related offences have been recorded against the instructor in the meantime.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection. Later, further audits are performed periodically or whenever deemed necessary in response to particular circumstances; these audits serve to monitor the compliance with training documentation requirements and the quality of the theory classes and practical driving instruction provided.

Training of driving test examiners

The profession of driving test examiner is open to persons who have completed the autonomous learning phase and thus hold a full driving licence; this equates to a minimum age requirement of 21 years and possession of a driving licence for at least three years. In addition, candidates must have completed advanced-level school education (constituting the entitlement to study at a university), and must present a certificate of adequate health.

Professional qualification training lasting a total of approximately seven months is prescribed. Around two-thirds of this time is devoted to practical training components, the remaining one-third to theoretical training. Before commencing training, it is necessary to pass an entry test comprising oral and written sections and a driving test. A concluding test is similarly prescribed and consists of a written theory section and a driving test. Driving test examiners must attend regular further training.

Quality assurance measures in test organisations

The pass rates for individual items of the knowledge test are analysed each year within the framework of internal quality assurance evaluations. The test procedures for both the knowledge test and the driving test are the subject of internal and external audits at regular intervals and whenever deemed necessary in response to particular circumstances; these audits are based on participatory observations and interviews.

Germany

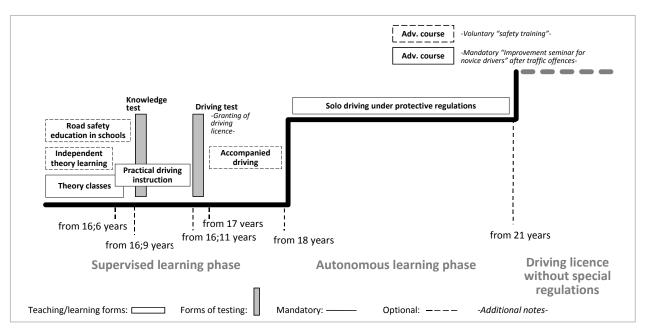


Fig. 14: System of novice driver preparation in Germany – "Accompanied driving from age 17 (BF17)" model

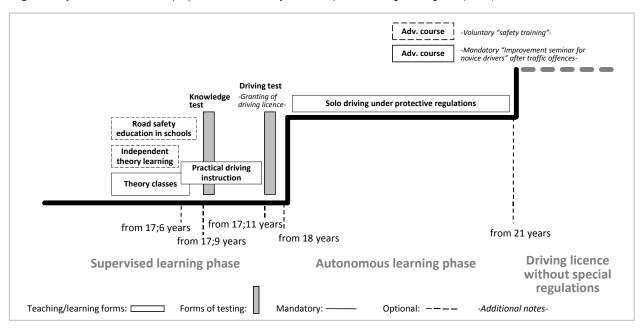


Fig. 15: System of novice driver preparation in Germany – model with training exclusively in a driving school

Overview

Novice drivers can choose between training exclusively in a driving school and the model "Accompanied driving from age 17" ("BF17"):

 In the case of training exclusively in a driving school, novice drivers attend mandatory theory classes and complete mandatory practical driving instruction (at the earliest from the age of 17 years and 6 months) with a professional driving instructor. They must take first a knowledge test ("Theoretical driving test", at the earliest from the age of 17 years and 9 months) and finally a driving test ("Practical driving test", at the earliest from the age of 17 years and 11 months). Passing of the driving test founds an entitlement to drive solo (at the earliest from the age of 18 years).

 Novice drivers who choose to participate in the "BF17" model must similarly complete formal driving school training with theory classes and practical driving instruction in a driving school, and must likewise take a knowledge test and driving test. Under the "BF17" model, however, it is possible to commence the driving school training and take the corresponding tests one year earlier than in the case of training exclusively in a driving school. Even after passing the driving test, "BF17" participants are initially only permitted to drive under the supervision of an experienced accompanist (at the earliest from the age of 17 years, and then until they reach the age of 18 years).

Under both models, successful completion of the driving test leads to granting of a two-year probationary driving licence subject to special protective regulations for novice drivers. Novice drivers who participate in the "BF17" model are thus already in possession of such a probationary driving licence when they commence accompanied driving – despite the requirement that an experienced accompanist be present, they are consequently deemed the legally responsible driver of the vehicle already before the commencement of solo driving from the age of 18 years. All novice drivers must observe an absolute zero-alcohol rule during the autonomous learning phase and thereafter, where appropriate, up to the age of 21 years.

Framework conditions

Minimum age requirements

The standard minimum age for the commencement of practical driving instruction within the framework of mandatory driving school training is 17 years and 6 months; there is no legally stipulated minimum age requirement for admission to theory classes. Under the "BF17" model, it is possible to commence practical driving instruction already one year earlier, i.e. from 16 years and 6 months. The knowledge test can be taken from the age of 17 years and 9 months (or 16 years and 9 months under the "BF17" model), and the driving test from the age of 17 years and 11 months (or 16 years and 11 months under the "BF17" model). A driving licence free of special regulations for novice drivers can be issued at the earliest from the age of 21 years and after expiry of a two-year probationary driving licence.

Proof of fitness to drive

Driving licence applicants must furnish proof of adequate vision by way of an eyesight test performed by an optician or ophthalmologist.

Knowledge of first aid

Before commencing theory classes, novice drivers must complete a first aid course with a scope of 12 hours or else instruction in life-saving measures at the scene of an accident comprising 8 course units (of 45 minutes each).

Duration and costs

On average, around 1.5 to 3 months pass before novice drivers commence solo driving. In the case of participation in the "BF17" model, the duration of the supervised learning phase before the commencement of solo driving is extended by up to 12 months. Protective regulations apply during the first 24 months after obtaining a driving licence and thereafter, where appropriate, up to the age of 21 years; if any traffic offences are committed, the autonomous learning phase can be extended by a further 24 months. The average costs incurred by a novice driver to obtain a driving licence amount to around 1,500 Euros.

Curriculum

In Germany, the training contents for formal driving school training are defined in the relevant legislation (Learner Driver Training Ordinance - Fahrsch-AusbO). Concrete training requirements for practical driving instruction are elaborated in a set of "Curricular guidelines for practical training for car drivers" ("Curricularer Leitfaden - Praktische Ausbildung PKW", published by the German Federation of Driving Instructor Associations, BVF). These quidelines assign the various contents of practical driving instruction to one of five stages of training, distinguishing between "basic training" (stages 1 to 3) and "special training" (stages 4 and 5). At the same time, learning objectives are formulated with reference to the training contents, and methodical-didactic recommendations are given on corresponding implementation. For theory classes, teaching material publishers produce guidelines and recommendations which are based on the specifications of the Learner Driver Training Ordinance and are intended to assist driving instructors in their planning of classes, their selection of teaching methods and the designing of teaching/learning situations.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes in a commercial driving school. A total of 14 course units (double units of 2 x 45 minutes each) must be completed; theory classes are given by a professional driving instructor.

The typically used teaching/learning methods include lecture presentations, class discussions,

written and oral progress assessment, reports on experiences by the participants, demonstrations by the instructor, and documentation of the individual's learning achievements on training sheets. Text books, slides, real videos, virtual driving scenarios, technical teaching models, models of traffic and road infrastructures, and computer-based training programs are the teaching/learning media used.

The contents conveyed in the course of theory classes cover the subject areas "Personal prerequisites", "Human behaviour as a risk factor", "Legal framework", "Road traffic system and its use", "Right of way and traffic regulations", "Road signs, traffic signals and railway crossings", "Other road users", "Speed, distance and environmentally aware driving", "Behaviour when performing driving manoeuvres and traffic observation", "Stationary traffic", "Behaviour in special situations and consequences of violations of traffic regulations" and "Life-long learning", as well as "Technical conditions, carriage of persons and goods, environmentally aware use of motor vehicles" and "Driving with solo vehicles and towing a trailer".

Road safety education in schools

A project promoting cooperation between schools driving schools ("Kooperation Schule-Fahrschule") is implemented in the German federal state of Lower Saxony and targets young people who intend to apply for a class B driving licence in the near future. The project is offered independently of general school lessons and mandatory driving school training; participation is voluntary. Within the framework of a working group ("Führerschein-AG"), future novice drivers are given an opportunity to approach topics related to participation in motorised road traffic in greater detail. To this end, the 14 mandatory theory classes in the driving school are complemented by a further 14 school-based theory classes. Alongside cooperation between schools and driving schools, the project seeks the involvement of further protagonists and institutions (e.g. police, fire brigade, road traffic experts).

Independent theory learning

Novice drivers prepare for the knowledge test not only within the framework of theory classes, but equally by way of independent theory learning. The available teaching/learning media to support independent theory learning are text books and computer-based training programs from commercial publishers, and Internet-based training programs from both commercial providers and the test organisations. The test items used in the knowledge

test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. A fixed scope of 12 course units (of 45 minutes each) is only prescribed for the so-called "special training drives" (driving outside built-up areas, driving on motorways, driving in the dark) which must be completed by the end of formal driving school training. Previously, the novice driver must have successfully completed an undefined scope of "basic training" (see "Curriculum" above), the duration of which is determined at the joint discretion of the driving instructor and novice driver. Novice drivers typically take around 15 to 30 further lessons in addition to the 12 prescribed course units. Practical driving instruction is offered exclusively by commercial driving schools and given by a professional driving instructor.

The typically used teaching/learning methods include driving on a practice ground or in a trafficcalmed environment, demonstrations by the instructor, driving on flexible routes in real traffic, "independent driving" and self-assessments of driving competence by the novice driver. Practical driving instruction is realised as individual instruction. Training vehicles must be equipped with dual controls, as well as additional rear-view mirrors and two wing mirrors on the right-hand side. The content conveyed during practical driving instruction covers the topics "Technical preparation of the vehicle", "Behaviour when driving off on the flat, uphill or downhill", "Changing gears", "Use of the road", "Turning and changing lanes", "Reversing and turning to face the other direction", "Observation of the traffic environment, the course and condition of the road, road signs and traffic signals", "Driving speed", "Motorways and high-speed roads", "Overtaking", "Behaviour at crossroads, iunctions and roundabouts". "Behaviour towards pedestrians and cyclists", "Stopping and parking", "Foresighted driving", "Behaviour in complicated traffic situations" and "Avoiding hazardous traffic situations", as well as "Safety checks" and "Vehicle control exercises".

Accompanied driving

In 2009, around 35 per cent of novice drivers made use of the opportunity to learn to drive with a lay person (at the earliest from the age of 17 years) within the framework of the "BF17" model. The prerequisite is that the novice driver must have already completed the mandatory theory classes and practical driving instruction, and must have passed the knowledge and driving tests. A certifi-

cate confirming successful completion of the driving test must be carried at all times during accompanied driving. Different persons are permitted to act as accompanists at different times, provided their names are also entered in the driving test certificate. Even within the framework of accompanied driving, the novice driver is the legally responsible driver of the vehicle, and as such also responsible for the compliance with all relevant special regulations – including those regulations which relate to the accompanist.

The accompanist must be at least 30 years old and must have held a class B driving licence for at least five years. He must not have more than three demerit points on record in the central register of traffic offenders. A maximum blood alcohol content of 0.05 per cent must be observed when acting as an accompanist.

Solo driving under protective regulations

After the transition to solo driving, novice drivers are initially granted a probationary driving licence for a period of two years. An absolute zero-alcohol rule must be observed by holders of a probationary driving licence and all novice drivers under the age of 21 years. Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations during the autonomous learning phase. The possible sanctions for traffic offences recorded under the demerit points system include improvement courses (so-called "Advanced Training Seminar for Novice Drivers"), monetary fines, the obligation to repeat driving licence tests and driving bans. The requirement to attend improvement courses is accompanied by extension of the probationary period for a further two years.

Advanced training course

The advanced training for novice drivers who have committed traffic offences (see above) is conducted by traffic psychologists in the case of alcohol-related offences, otherwise by a driving instructor. In addition to the improvement courses for traffic offenders, the further training measures in connection with novice driver preparation include also voluntary training offers open to all novice drivers (e.g. driving safety training).

Forms of testing

Knowledge test

The knowledge test is realised as a computerbased test. A total of 30 test items must be answered (multiple-choice questions, for which one or possibly several answer options may be correct, as well as gap-fill questions requiring a numerical input). Each individual test item is weighted with a certain number of error points. To pass, the candidate must not accumulate more than 10 error points; as an exception, the test is already deemed failed with 10 error points, if this results from incorrect answers to two questions weighted with five points each. There is no limit to the time allowed to complete the test, but the typical test duration is around 30 minutes. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective. Following introduction of the computer as test medium, the test items will in future also be visualised by way of computer-animated video sequences.

The test contents cover the topics "Hazards", "Behaviour in road traffic", "Right of way", "Traffic signs", "Environment protection", "Regulations on the use of motor vehicles", "Technical aspects of a motor vehicle" and "Qualification and fitness to drive". Each of these topics is broken down further into subcategories. The test result is announced in person by the driving test examiner at the end of the test. At the same time, the novice driver is informed as to the questions which were answered correctly and any subject areas in which learning deficits persist. If the test is unsuccessful, a repeat attempt is possible at the earliest after two weeks. The pass rate for the knowledge test is 75 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is 45 minutes, of which at least 25 minutes are assigned to the actual test drive. A driving instructor (usually the driving instructor who previously trained the novice driver) must sit in the front passenger seat, and is the person legally responsible for the vehicle during the driving test. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, the driving test examiner observes correct adjustment of the mirrors and seat position, including the head-rest, as well as use of the safety belt and proper closing of the doors. Furthermore, the novice driver must demonstrate a random safety check (e.g. tyre pressure, tyre tread, vehicle lights, steering, brakes, fluid levels).

During the test drive, the candidate must complete two basic driving manoeuvres: For the first of these two, the driving test examiner chooses either "Reversing around a corner to the right making use of a junction, crossroads or entrance" or "Reversing into a parking space (parallel to the traffic)". The second task is one of the following three options: "Parking in a space (obliquely or at right angles to

the traffic)", "Turning the vehicle to face the opposite way" or "Braking with the maximum possible deceleration".

The test drive follows a flexible route in real traffic, with around half of the actual driving time to be spent outside built-up areas; where possible, this should include also driving on a motorway. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner; if the novice driver confirms that he is familiar with the local surroundings, the driving test examiner may also specify an overall destination.

Test performance is assessed on the basis of a report in which any driving errors observed are recorded. The test is terminated prematurely and thus deemed failed if the candidate displays any serious errors in behaviour (e.g. gross disregard of the rules of priority and right-of-way, or overtaking where this is prohibited). Furthermore, errors in behaviour which are in themselves not generally serious enough to warrant failing of the driving test may nevertheless result in failure if they are observed repeatedly (e.g. inadequate traffic observation, inappropriate speed).

At the end of the test drive, the test result is communicated during a concluding discussion, and the recorded driving errors are explained. The novice driver only receives a test report if the test was not passed. In this case, a repeat attempt is possible at the earliest after two weeks. The pass rate for the driving test is 72 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 23 years, successful completion of at least vocational training in a recognised occupation after full school education (or equivalent prior qualification), and possession of a driving licence for vehicle classes A, BE and CE (and additionally for class DE, if the driving instructor licence is also to be valid for class DE).

Driving instructors must complete professional qualification training with a total scope of 770 hours. This training comprises 5.5 months of theoretical training in an instructor training centre and 4.5 months of training in a designated driving school. A professional qualification test is similarly prescribed; this test comprises written and oral theoretical sections, as well as a driving test and sample demonstrations of theoretical and practical instruction. Driving instructors must attend three days of further training in four years.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to an official inspection. Later, periodic audits are performed at least every two years to monitor proper realisation of the training and the standard of the classrooms, teaching materials and training vehicles. The authorities are permitted to waive the standard periodic audits, however, if the driving school participates in an officially approved quality assurance system; on the other hand, no such system actually exists to date. In a number of German federal states, the formal auditing is supplemented by measures to assess the pedagogical-didactic quality of driving school training.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 24 years who have obtained a university degree in mechanical, vehicle or electrical engineering and possess a driving licence for all vehicle classes (with the exception of classes D and DE, unless it is intended to conduct driving licence tests also for these classes). It is furthermore necessary to have worked in an engineering profession for at least 18 months. Mandatory training with a total scope of six months is provided through the test organisations ("Technical Examination Centres"). The concluding test comprises a practical driving test, a written theory test and a 30-minute oral theory test. Further training must be attended on at least five days per year.

Quality assurance measures in test organisations

The test organisations ("Technical Examination Centres") are subject to regular external monitoring by the Federal Highway Research Institute (BASt). These external state audits are generally performed once per year. They serve to monitor the implemented quality management system and include direct assessments of both theoretical and practical driving tests. In addition, the test organisations are required to perform internal evaluations. An appointed quality officer is responsible for the realisation of the internal evaluations, as well as for the organisation of regular and special audits. The Technical Examination Centres also conduct surveys among driving licence applicants, driving instructors and the staff of licensing authorities to assess customer satisfaction with regard to test realisation. The psychometric parameters of both individual test items and parallel tests for the knowledge test are similarly the subject of continuous evaluation and content-related analysis in cooperation with independent scientific institutions.

Further development

The nationwide introduction of a computer-based knowledge test ("Theoretical driving test") established foundations for continuous evaluation and further development of this form of testing. After merely transferring conventional test sheets to a computer in the first instance, further development steps are now being tested and implemented successively. This refers, for example, to the presentation of computer-generated static images, the use of computer-generated dynamic driving scenarios to depict traffic situations, and the development of new test item formats. Further research and development projects are currently aimed at further development of the driving test ("Practical driving test") in respect of its demand, observation and assessment standards. Following evaluation and permanent adoption of the "BF17" model, for which a safety-relevant effect could be proven, the optimisation potential of further components of the system of novice driver preparation (e.g. driving school training, road safety education in schools, solo driving under protective regulations) is now to be analysed as a basis for further development within an overarching framework concept for novice driver preparation.

Great Britain

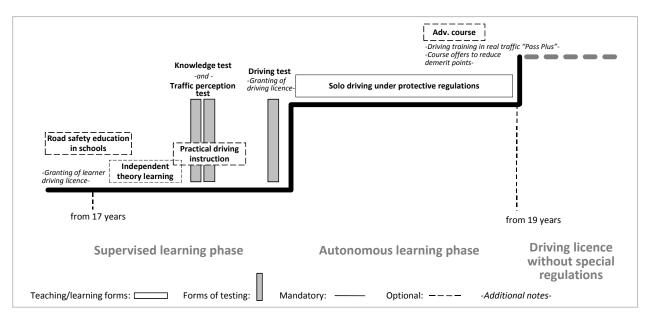


Fig. 16: System of novice driver preparation in Great Britain

Overview

Novice drivers must initially apply for a learner driving licence, which entitles them to commence practical driving instruction (at the earliest from the age of 17 years). They are then permitted to learn to drive either under the supervision of a lay trainer or with a professional driving instructor. During the supervised learning phase, novice drivers must take a knowledge test (at the earliest from the age of 17 years), for which they prepare by way of independent theory learning. The knowledge test is followed immediately by a traffic perception test. The successful completion of both of these tests is a prerequisite for admission to take the driving test (at the earliest from the age of 17 years). Passing of the driving test is followed by a two-year autonomous learning phase, after which a driving licence free of special regulations for novice drivers is granted.

Framework conditions

Minimum age requirements

The minimum age for issuing of a learner driving licence and thus the commencement of practical driving instruction by a lay trainer or professional driving instructor is 17 years. The same minimum age requirement applies for admission to the knowledge, traffic perception and driving tests. A driving licence free of special regulations for novice drivers can be granted at the earliest 24 months after taking the driving test, i.e. at the earliest from the age of 19 years.

Proof of fitness to drive

When applying for a learner driving licence, applicants must submit a self-report on possible health-related impairments of their fitness to drive. In addition, the candidate's eyesight is tested at the beginning of the driving test, by requiring that a number plate be read from a distance of 20 metres.

Duration and costs

On average, around eight months pass before novice drivers commence solo driving. The transition to solo driving is followed by a 24-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 1,650 Euros.

Teaching and learning forms

Independent theory learning

Novice drivers prepare for the knowledge and traffic perception tests primarily by way of independent theory learning. There is no mandatory requirement to attend theory classes, and less than one per cent of novice drivers make use of optional class offers. The applicable road traffic legislation ("Highway Code") serves as the basis for traffic-related knowledge acquisition and thus preparation for the knowledge test. Printed and electronic learning materials are made available to novice drivers by both the test organisations and commercial publishers to support independent theory learning. The test items used in the knowledge test

are publicly accessible and may be used for test preparation.

With regard to practical driving instruction, the test organisation ("Driving Standards Agency") publishes an official text book to assist preparation for the driving test.

Road safety education in schools

Pupils of both general schools and vocational training centres are able to join a novice-related preliminary training programme ("Safe Road User Award"), whose content focus is placed on improving not only novice driver safety in particular, but also safety for road users in general. The scheme is geared to 14 to 16-year-olds who have already gained traffic experience as pedestrians or cyclists and usually stand at the threshold to motorised participation in road traffic. The content is structured into two main units ("Developing positive road user attitudes" and "Understanding how to use the roads"); no data were obtained on rates of participation.

Practical driving instruction

Practical driving instruction may be taken either under the supervision of a lay trainer or with a professional driving instructor. The voluntary option of practical driving instruction under the supervision of a professional instructor ("Approved Driving Instructor") is used by approximately 98 per cent of novice drivers. Novice drivers typically take around 52 driving lessons (WELLS et al., 2008).

The teaching/learning methods typically used by professional driving instructors are driving on a practice ground and driving on standard and flexible routes in real traffic. Practical driving instruction is usually realised as individual instruction. No special equipment is prescribed for the vehicle used for practical driving instruction, but most driving school vehicles are nevertheless equipped with dual controls.

The option of practical driving instruction under the supervision of a lay trainer, at the earliest from the age of 17 years, is used by around 55 per cent of novice drivers. These drivers typically drive around 320 kilometres during the period before they take the driving test (WELLS et al., 2008). The prerequisite for lay driver training is that the novice driver holds a learner driving licence. During such training, driving is permitted exclusively under the supervision of an experienced accompanist. Driving on motorways and the towing of a trailer are forbidden. Furthermore, additional insurance cover must be obtained and the vehicle must be marked as a learner vehicle. The lay trainer must be at least 21 years old and must have been in posses-

sion of a class B driving licence for at least three years.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations during this period; if six points are accumulated, this results in a driving ban. All tests must then be repeated to regain a driving licence.

Advanced training course

There is no mandatory requirement to attend an advanced training course. The opportunity to take a voluntary advanced training course ("Pass Plus") is used by around 10 to 15 per cent of novice drivers. One incentive for participation is the prospect of reduced liability insurance premiums. The advanced training course is realised as a combination of individual and group instruction and comprises six modules ("Driving in town", "Driving in all weathers", "Driving on rural roads", "Driving at night", "Driving on dual carriageways" and "Driving on motorways"). The content of each module is conveyed by way of drives in real traffic. It is also usual to practice driving with the aid of a navigation system. The functions of driver assistance systems, on the other hand, are only a topic if the vehicle used by the driving instructor is equipped with such systems.

Further course offers are available as a means to earn reduction of the demerit points on a driver's record; these courses are open to both novices and experienced drivers.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 43 of the total of 50 test items must be answered correctly. The candidate is allowed around 40 minutes to complete the test. The test items are presented in the form of single and correlated multiple-choice questions; the latter category refers to so-called "case studies", where several different questions must be answered in connection with a specific traffic situation. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective.

At the end of the test, the candidate receives a written report on the test result. In this way, the novice driver is given feedback on the total score achieved, the test items which were answered correctly or incorrectly, and the subject areas in

which knowledge deficits were revealed. The pass rate for the knowledge test is 72 per cent.

Traffic perception test

A traffic perception test is taken immediately after successful completion of the knowledge test. The novice driver is shown 14 one-minute video sequences, during which he must click with the mouse as soon as a hazardous situation is recognised. One of the videos contains two such hazard cues, all the others just one hazard cue. The novice driver's test performance is assessed according to whether a hazardous situation was correctly spotted and the speed of his corresponding reaction. A maximum of five points is awarded for each hazard to be identified. To pass, the candidate must collect at least 44 of the 75 possible points. The pass rate for the traffic perception test is 85 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is around 50 minutes, of which almost 40 minutes are assigned to the actual test drive. The driving test examiner sits in the front passenger seat during the driving test. The professional driving instructor or lay trainer is permitted to be present in the vehicle.

Before setting off, the novice driver must answer two questions relating to technical preparation of the vehicle and safety checks. One of these questions involves practical demonstration of a certain action ("Show me" question), for example checking the proper functioning of the signal horn or turn indicators. The second question requires a verbal explanation ("Tell me" question), which could refer, for example, to the necessary steps to check the tyre tread, the tyre pressure or proper functioning of the brakes.

Two of the following basic driving manoeuvres must be performed during the course of the test drive: "Reversing around a corner", "Turning in the road" and "Reverse parking into a parking bay or parallel parking at the side of the road". In addition, emergency braking is tested in every third driving test.

The test drive follows a standard route, which the driving test examiner selects from the pool of approximately 20 standard routes available at each test centre. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

For the assessment of test performance, a distinction is made between "Driving faults" (i.e. mistakes in vehicle handling or incorrect reactions in non-dangerous situations), "Serious faults", i.e. errors

which could potentially endanger others) and "Dangerous faults" (i.e. errors resulting in the actual endangering of others). The test is deemed failed if the candidate commits one "dangerous fault", one "serious fault" or 16 or more "driving faults".

At the end of the test drive, the test result is communicated during a concluding discussion; the novice driver may also ask for feedback on the strengths and weaknesses revealed by the test drive. The test report is handed over to both successful and unsuccessful candidates. If the test is not passed, a repeat attempt is possible at the earliest after 10 working days. The pass rate for the driving test is 46 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years and at least four years of practical driving experience.

Professional qualification training is not prescribed, but most candidates make use of optional training offers. A test to become an "Approved Driving Instructor" is prescribed by the Driving Standards Agency and comprises a written theory test and a driving test. In addition, teaching ability must be demonstrated by way of a sample of practical driving instruction. Further training is not prescribed, but a renewal test must be taken every four years.

Auditing of driving schools

Driving schools are subject to personal audits at least every four years, during which the pedagogical quality of practical driving instruction is assessed by an external expert from the Driving Standards Agency.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 26 years who have been in possession of a driving licence for at least five years. It is furthermore necessary to complete a total of four to six weeks of professional qualification training, followed by a 12-month probationary period in a test centre. There is no final test at the end of the training period; instead, the candidate's achievements are evaluated continuously during the training, which means that it is nevertheless possible to fail the training.

Quality assurance measures in test organisations

Quality assurance relating to the knowledge test consists of monthly reviews of the test items used, in order to monitor their difficulty index, and analyses of the pass rates according to age, gender and test location. The test items used are updated at regular intervals, and the suitability of new items may be tested openly within the framework of the regular knowledge test before final introduction. With regard to the driving test, a quality management system for driving test examiners involves assessments and analyses of test reports and periodic audits of driving test realisation in connection with internal evaluations.

Further development

To derive measures for further development in the system of novice driver preparation, consideration has been given to both expert surveys and an empirical study to collect data on the learning and driving behaviour of novice drivers (WELLS et al., 2008). Building upon the results of this analysis, "case studies" (see "Knowledge test" above) were introduced as a new form of test item presentation for the knowledge test. Furthermore, "independent driving" is to become an element of the driving test, with the aim of being able to assess the novice driver's decision-making capabilities.

Greece

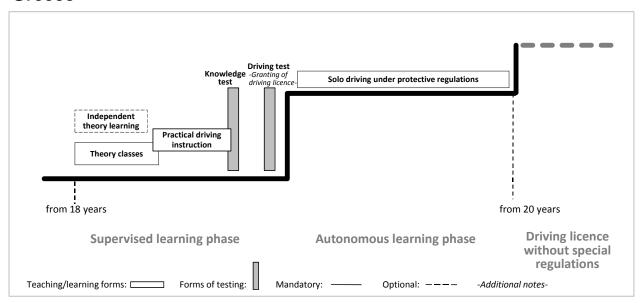


Fig. 17: System of novice driver preparation in Greece

Overview

During the supervised learning phase, it is a mandatory requirement to attend theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 18 years). Subsequently (at the earliest from the age of 18 years), it is necessary to take first a knowledge test and finally a driving test. If the driving test is passed, the novice driver is entitled to drive solo under protective regulations during a two-year autonomous learning phase, before a full, unrestricted driving licence is issued.

Framework conditions

Minimum age requirements

The minimum age for attendance at theory classes, the commencement of practical driving instruction in a driving school and admission to the knowledge and driving tests is 18 years. A driving licence free of special regulations for novice drivers is granted at the end of a two-year autonomous learning phase, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Driving licence applicants are required to undergo a medical examination, to be performed by a doctor approved by the transport ministry, and must present a certificate of an eyesight test from an ophthalmologist.

Duration and costs

No data were received on the average duration of the supervised learning phase. Protective regulations apply during the first 24 months of solo driving; these regulations are lifted at the earliest from the age of 20 years. The average costs incurred by a novice driver to obtain a driving licence lie between 700 and 900 Euros.

Curriculum

The contents of theory classes are anchored in a curriculum published by the transport ministry.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. At least 20 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

The typically used teaching/learning methods include the completion of test sheets, demonstrations by the instructor and the setting of homework. Text books, test sheets and computer-based training programs are the teaching/learning media used.

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. The materials available to support independent theory learning are text books from commercial publishers and the curriculum published by the transport ministry (see above). The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 20 course units (of 45 minutes each) must be completed. Practical driving instruction is offered exclusively by commercial driving schools.

The typically used teaching/learning methods include driving on a practice ground, as well as driving on standard and flexible routes in real traffic. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls.

Solo driving under protective regulations

Novice drivers are subject to a lower maximum permissible blood alcohol content of 0.02 per cent for a period of two years after commencing solo driving. Appropriate marking of the vehicle is likewise prescribed.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 29 of the total of 30 test items (multiple-choice questions) must be answered correctly. The candidate is allowed 35 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos.

The test result appears on the screen at the end of the test; the novice driver is furthermore informed as to the test items which were answered correctly and the total score achieved. If the knowledge test is not passed, a repeat attempt is permitted at the earliest after seven days. The pass rate for the knowledge test is 70 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total duration of the test is around 35 minutes, of which 25 minutes are assigned to the actual test drive. The driving instructor must be present during the driving test. The test, moreover, is conducted by two driving test examiners.

Within the framework of technical preparation of the vehicle, the novice driver must demonstrate, for example, that he is able to perform checks of the tyres, brakes and steering, and is conversant with operation of the vehicle lights, turn indicators and signal horn. He is furthermore required to adjust his seat position and mirrors correctly, and must ensure that all passengers have similarly closed their doors and fastened their seat belts before driving off.

Over the course of the test, "Parallel parking", "Reversing around a corner to the left or right", "Turn-

ing the vehicle to face the other way" and "Driving off uphill (with or without use of the hand brake)" are tested as basic driving manoeuvres.

The test drive follows a flexible route. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, but also drives independently to specified destinations.

For assessment of the displayed test performance, the driving test examiner distinguishes between "simple errors" (e.g. mistakes when changing gear or incorrect positioning on the road) and "serious errors" (e.g. violation of rules on right-of-way, errors resulting in an accident). The test is deemed failed if the candidate commits one "serious error" or more than four "simple errors". If the test is not passed, the novice driver must take ten further driving lessons with a professional driving instructor before a repeat attempt is permitted. The pass rate for the driving test is 50 per cent.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 21 years, advanced-level school education (constituting the entitlement to study at a university) and possession of a driving licence for at least three years.

Driving instructors must complete professional qualification training comprising a total of 1,680 hours of theoretical and practical instruction spread over a period of approximately one year. The theoretical training is provided by a recognised training facility, while the practical training is realised in a driving school. The concluding test comprises written and oral theoretical sections, alongside a driving test. A driving instructor licence is granted with a period of validity of five years. A medical examination must then be passed to renew the licence. Further training is not prescribed.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection. Later, periodic audits are performed to monitor the standard of the classrooms, teaching materials and training vehicles and to review the pedagogical quality of practical driving instruction.

Training of driving test examiners

Driving test examiners are members of staff of the transport ministry. They are required to have held a driving licence for at least five years. No information was received on further prerequisites.

Iceland

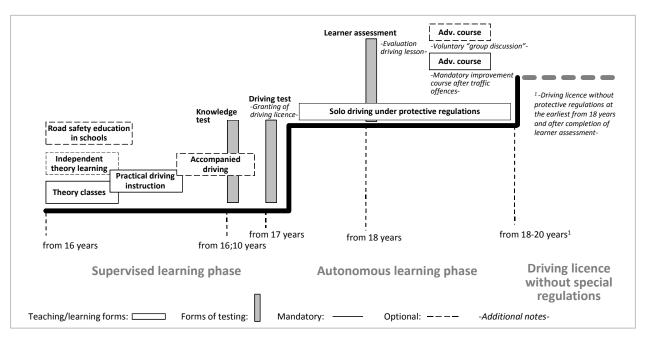


Fig. 18: System of novice driver preparation in Iceland

Overview

During the supervised learning phase, it is a mandatory requirement to attend theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 16 years). After completing a number of hours of theory classes and practical driving instruction, it is possible to commence optional accompanied driving; the remaining course units of the prescribed driving school training can be attended at a freely chosen time. It is first necessary to pass a knowledge test (at the earliest from the age of 16 years and 10 months) and then a driving test (at the earliest from the age of 17 years). A successful driving test is followed by a three-year autonomous learning phase. At the latest by the end of this autonomous learning phase, novice drivers must attend a learner assessment conducted by a driving instructor ("evaluation driving lesson"). Subsequently, a driving licence free of special regulations is granted. Through early completion of the aforementioned learner assessment, it is possible to shorten the duration of the autonomous learning phase to as little as one year.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction in a driving school is 16 years. The knowledge test may be taken from the age of 16

years and 10 months, and the earliest permissible opportunity to take the driving test is one week before reaching the age of 17 years. A driving licence free of special regulations for novice drivers can be granted at the earliest from the age of 20 years (or from 18 years if the mandatory learner assessment is brought forward accordingly).

Proof of fitness to drive

Driving licence applicants must present a self-report on their health-related fitness to drive.

Duration and costs

On average, between six and eight months pass before novice drivers commence solo driving. Protective regulations apply during the first 12 to 36 months after obtaining a driving licence; the protective regulations are lifted after completion of the mandatory learner assessment. No data were received on the costs incurred to obtain a driving licence.

Curriculum

A curriculum establishes mutual references between the training and test contents, and arranges the individual aspects into a series of simple to more complex topics. The contents of the theory classes are structured under the thematic headings "Overview", "Vehicle, road and traffic", "Traffic behaviour", "Human influences" and "Driver responsibilities". The contents of practical driving instruction cover the areas "Basic training", "Driv-

ing in traffic", "Driving in built-in areas", "Driving in rural areas" and "Driving under difficult conditions".

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 24 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

The typically used teaching/learning methods include lecture presentations, class discussions and the completion of test sheets. Text books, slides, real videos, test sheets and technical teaching models are the teaching/learning media used. In addition, personality models and attitudes are discussed during the theory classes. With regard to the risk group of young drivers, accident statistics and the positive or negative effects of driving experience are further topics.

Road safety education in schools

In many secondary schools, between two and seven lessons are devoted to topics connected with preparation for driver training and the driving licence tests. These lessons are considered supplementary and are not counted towards the mandatory scope of driving school training.

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. The available teaching/learning media to support independent theory learning are text books from commercial publishers and Internet-based training offers from both commercial providers and the test organisations. The test items used in the knowledge test are not publicly accessible.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 16 course units (of 45 minutes each) must be completed. Novice drivers typically take around four additional lessons beyond this minimum scope. The practical driving instruction is offered by commercial driving schools. The typically used teaching/learning methods include driving on standard and flexible routes in real traffic and "commentary driving". Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls and additional outside and inside rear-view mirrors, and must furthermore be marked as a learner vehicle. Practical driving instruction under the supervision of a lay trainer and thus extended practical driving experience in the form of accompanied driving (see below) is possible after

completion of a certain proportion of the mandatory driving school training.

Accompanied driving

Around 80 per cent of novice drivers make use of the available option of accompanied driving at the earliest from the age of 16 years. The prerequisite is that the novice driver must have already completed at least 12 of the total of 24 mandatory theory classes and at least 10 of the total of 16 mandatory sessions of practical driving instruction in a driving school. They must furthermore be able to furnish a certificate of training from a professional driving instructor, corresponding approval from the police authorities and proof of insurance cover. Within the framework of accompanied driving, the vehicle must be marked as a learner vehicle and driving abroad is not permitted. Accompanists must be at least 24 years old and must have held a class B driving licence for at least five years; they must furthermore have no serious traffic offences on record from the past 12 months.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of three years. Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations during this period. The sanctions for traffic offences recorded under the demerit points system include improvement courses, an obligation to repeat the driving test, monetary fines and driving bans. If the mandatory learner assessment ("evaluation driving lesson") is completed successfully within the first year of the autonomous learning phase, and provided no traffic offences have been recorded under the demerit points system, a driving licence free of special regulations for novice drivers can already be granted after one year.

Advanced training course

Novice drivers may attend a voluntary advanced training seminar. This seminar consists of a group discussion, but does not include any practical driving components. As an incentive for participation, reduced premiums for liability insurance are offered. In case of traffic offences, completion of a 14-hour improvement course may be prescribed.

Forms of testing

Knowledge test

The knowledge test is realised as a "paper-and-pencil" test. To pass, at least 83 of the total of 90 answers given must be correct. The test items are presented in the form of true/false or multiple-choice questions (total of 30 test items), each of which comprises three statements which must be

marked as either true or false. The candidate is allowed 45 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

At the end of the test, the candidate receives a written report on the test result with feedback on the items which were answered correctly or incorrectly. The pass rate for the knowledge test is 70 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is 45 minutes, of which at least 35 minutes are assigned to the actual test drive. Neither the professional driving instructor nor the previous accompanist may be present in the vehicle during the driving test. The driving test examiner sits in the front passenger seat.

Within the framework of technical preparation of the vehicle, it is tested whether the novice driver is capable of checking the vehicle brakes, the headrests, his seat position, the adjustment of the mirrors, the front and rear lights, the turn indicators and the tyres. This element of the test is realised as an oral test and comprises a total of five questions, which must be answered either verbally or by demonstration.

The test drive follows a standardised route, for which the novice driver is given concrete driving instructions by the driving test examiner. The following three basic driving manoeuvres may be tested during the course of the test drive: "Driving off uphill", "Emergency braking" and "Parking"; of these three manoeuvres, "Parking" is a required element of every test.

The driving test examiner assesses the test performance on the basis of six observation categories, namely "Turning", "Vehicle positioning", "Selecting and changing lanes", "Speed", "Awareness and driving safety" and "Reversing". The novice driver starts the test drive with a credit of 100 points. Individual driving errors are weighted with either 1, 3 or 12 penalty points depending on their severity. The applicable penalty is then multiplied by two in each case to determine the number of credit points to be deducted for each error recorded. Particularly good performance is rewarded with additional credit points. No weighting applies in such cases; no more than one point can be awarded. To pass, the novice driver must reach the end of the test with at least 80 points remaining.

At the end of the test drive, the test result is communicated during a concluding discussion, which also addresses the driving errors observed and positive aspects of the candidate's test performance. A test report is drawn up during the test drive, but is not handed over to the novice driver. If the test is unsuccessful, a repeat attempt is possible at the earliest after one week. The pass rate for the driving test is 90 per cent.

Learner assessment

It is a mandatory requirement to attend a learner assessment during the autonomous learning phase. This takes the form of a 45-minute "evaluation driving lesson" with a driving instructor. Before setting off, the novice driver must present a self-assessment of his driving competence. This is followed by a drive of approximately 30 minutes in real traffic. During a concluding discussion, the original self-assessment is then compared with the driving instructor's observations and his professional assessment of the novice driver's driving competence.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 23 years, advanced-level school education (constituting the entitlement to study at a university) and possession of a class B driving licence for at least three years.

Driving instructors must complete professional qualification training. This training comprises 430 hours of theory classes at a university and 70 hours of practical driving instruction. A test is similarly prescribed and consists of written and oral theoretical sections, alongside a practical driving test. In addition, the candidate must demonstrate his teaching abilities by way of samples of theoretical and practical instruction. Further training is prescribed every three years.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials, training vehicles and the teaching manual on which the driving school training is based are subjected to corresponding inspection. Later, periodic audits are performed to monitor the compliance with documentation requirements (e.g. documentation of the driver training provided) and to evaluate the pedagogical quality of theory classes in respect of the stipulations of the curriculum and the teaching manual.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 21 years who have suc-

cessfully obtained a university degree and have held a driving licence for at least five years.

Mandatory professional qualification training with a scope of at least three weeks is realised by the test organisation. In addition, future driving test examiners must have participated in a full series of the mandatory theoretical and practical course units in a driving school, so as to gain a corresponding insight into the training process for novice drivers. They also spend three weeks working at a test centre under the observation of a supervisor. The concluding test comprises a theoretical test, along-side realisation of a knowledge test and a driving test; the candidate's performance is assessed by an external state examiner. Driving test examiners must attend at least two days of further training per year.

Quality assurance measures in test organisations

Quality assurance measures include internal evaluations of the validity of test items used in the knowledge test. In addition, the procedures for realisation of the knowledge test are subject to external evaluation up to four times per year. With regard to the driving test, all tests conducted are recorded and evaluated; this also permits comparisons between driving test examiners. At the same time, external audits of actual driving tests are conducted, with an external supervisor accompanying the driving test examiner in the test vehicle.

Further development

As one possibility for the further development of novice driver preparation in Iceland, consideration is being given to an increased minimum age requirement of 18 years for solo driving. Furthermore, driving schools are to play a more central role within the overall system of novice driver preparation, as a means to intensify exchanges on practical experience and to promote professional discourse on the essential concerns of driver training.

Ireland

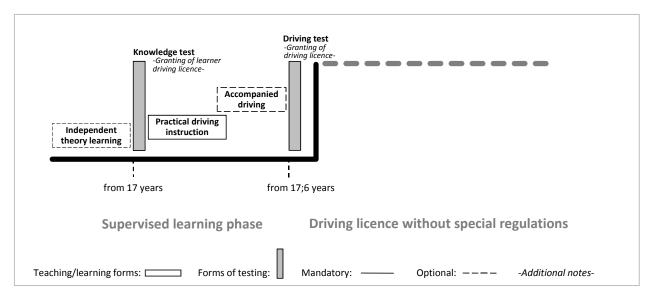


Fig. 19: System of novice driver preparation in Ireland

Overview

Novice drivers prepare for an initial knowledge test by way of independent theory learning. If this test is passed, a learner driving licence ("Learner's Permit") is granted and the novice driver is then entitled to commence practical driving instruction under the supervision of a lay trainer or accompanied driving (at the earliest from the age of 17 years). During the supervised learning phase, a course of practical driving instruction with a professional driving instructor ("Essential Driver Training") is a mandatory requirement. The driving test can be attempted after a period of at least six months, and must be taken at the latest after two years. If the driving test is passed, a full, unrestricted driving licence is issued, i.e. the system does not specify any protective regulations for novice drivers.

Framework conditions

Minimum age requirements

The minimum age for admission to the knowledge test and thus granting of a learner driving licence is 17 years. The driving test can be taken at the earliest six months after obtaining a learner driving licence, i.e. from 17 years and 6 months. A driving licence free of special regulations for novice drivers can likewise be granted at the earliest from the age of 17 years and 6 months.

Proof of fitness to drive

Driving licence applicants are required to submit a self-report on their health-related fitness to drive, and must furthermore pass an eyesight test.

Duration and costs

The supervised learning phase must be spread over a period of at least six months, before the novice driver is permitted to take the driving test and commence solo driving. No data were received on the costs incurred to obtain a driving licence.

Curriculum

The contents of formal driver training with a professional driving instructor ("Essential Driver Training") are anchored in a corresponding curriculum. The curriculum is structured into 12 lessons: "Car controls and safety checks", "Correct positioning in simple traffic situations", "Changing direction in simple situations", "Progression management", "Correct positioning in complex traffic situations", "Anticipation and reaction", "Sharing the road", "Driving safely through traffic", "Changing direction in more complex situations"; "Speed management", "Driving calmly" and "Night driving".

Teaching and learning forms

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. This learning is supported by an official text book published by the test organisation "Road Safety Authority" ("RSA"), which is also available in the form of a CD-ROM. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Holders of a learner driving licence are permitted to drive exclusively under the supervision of an experienced accompanist, who must have been in possession of a driving licence for at least two years (see "Accompanied driving" below). Practical driving instruction with a professional driving instructor ("Essential Driver Training") is mandatory and comprises 12 course units (of 60 minutes each). This training may only be offered by a professional driving instructor who has been certified accordingly by the RSA ("Approved Driving Instructor"). Novice drivers are recommended to take the prescribed lessons at intervals of two weeks, so as to leave sufficient opportunity for corresponding practice between lessons.

Accompanied driving

As a prerequisite for accompanied driving, the novice driver must have passed the knowledge test which leads to the granting of a learner driving licence. Holders of this learner driving licence are entitled to drive exclusively under the supervision of an experienced accompanist for a period of at least six months, but no more than two years. No information was received on the actual amount of driving done.

Within the framework of accompanied driving, the vehicle used must be marked as a learner vehicle. Driving on motorways, driving abroad and the towing of a trailer are forbidden. The accompanist must have held a class B driving licence for at least two years and is furthermore required to observe the same maximum permissible blood alcohol content which applies to drivers.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 35 of the total of 40 test items (multiple-choice questions) must be answered correctly. The candidate is allowed 45 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

The test contents cover the topics "Road signs, markings and traffic regulations", "Alert driving and consideration for other road users", "Observation and field of vision", "Correct judgement and perception", "Observance of safe distances and driving under different road and weather conditions", "Driving risk factors related to road conditions, the weather and the time of day or night", "Characteristics of different types of road", "Vulnerable road users", "Documents", "Accidents", "Safety factors

relating to loads and persons carried", "Technical aspects of road safety", "Environmental concerns", "Alighting from the vehicle" and "Vehicle safety equipment". At the end of the test, the candidate is informed as to the test result and receives a written report with feedback on the subject areas in which knowledge deficits were revealed. The pass rate for the knowledge test is 66 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total duration of the driving test is 50 minutes, of which 30 minutes are assigned to the actual test drive. Neither the driving instructor nor the lay accompanist is permitted to be present in the vehicle during the driving test. The driving test examiner sits in the front passenger seat.

The driving test begins with an oral section, in which the novice driver must answer a total of 18 questions on traffic rules (of which 10 questions refer to the meanings of road signs). Within the framework of technical preparation of the vehicle, the novice driver must also show by way of explanation or demonstration ("Show me" and "Tell me" questions), that he knows how to perform checks of three of the following vehicle features and controls: Tyres, lights, reflectors, turn indicators, engine oil, coolant, windscreen wiper fluid, steering, brakes and signal horn.

The test drive follows a standardised route in real traffic. The following basic driving manoeuvres must be performed during the course of the test drive: "Turning the vehicle to face the other way", "Driving off uphill", "Reversing around a corner", "Parking" and "Moving off into traffic and stopping". The novice driver must furthermore show that he is able to give correct hand signals to other road users.

For the assessment of test performance, three categories of errors are distinguished: Grade 1 "Minor fault", Grade 2 "More serious fault" and Grade 3 "Dangerous or potentially dangerous fault". Grade 1 faults alone do not affect the test result, though multiple occurrences may together be treated as a Grade 2 fault (e.g. three or more questions not answered in the oral section or in connection with technical preparation of the vehicle, or three or more incorrectly demonstrated hand signals). The driving test is deemed failed if the driving test examiner observes one or more Grade 3 fault, four Grade 2 faults relating to the same aspect of driving, six Grade 2 faults under the same category heading, or a total of nine or more different Grade 2 faults.

At the end of the test drive, the test result is communicated and the candidate receives the test report in which the observed driving errors are documented. The pass rate for the driving test is 57 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 19 years and possession of a class B driving licence for at least two years. Furthermore, there must be no criminal or traffic-related offences on record against the candidate.

Training is not prescribed, but various tests must be passed to obtain certification as an "Approved Driving Instructor" from the test organisation "RSA". These tests include a 90-minute knowledge test, a 60-minute driving test and two 30-minute sample demonstrations of teaching ability, for which a driving test examiner from the RSA assumes the role of the learner driver.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 22 years. Prospective examiners must provide a written declaration that no serious legal offences are on record against their person, and must furthermore pass an entry test. A professional qualification test must be taken after at least six weeks of training.

Quality assurance measures in test organisations

For purposes of quality assurance, newly developed test items are tested openly within the framework of regular test realisation and also remain subject to close monitoring after introduction into the knowledge test.

Further development

Ireland intends to introduce a two-year autonomous learning phase, during which novice drivers will be required to observe stricter regulations relating to the maximum permissible blood alcohol content when driving, and must furthermore mark their vehicle as a novice vehicle. In addition, plans exist for the introduction of a traffic perception test and further development of the current knowledge and driving tests.

Israel

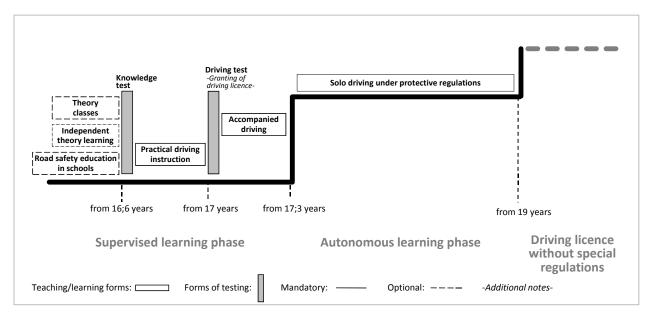


Fig. 20: System of novice driver preparation in Israel

Overview

Novice drivers prepare for a knowledge test by way of independent theory learning or optional theory classes. After passing the knowledge test (at the earliest from the age of 16 years and 6 months), they attend mandatory practical driving instruction with a professional driving instructor. The next step is a driving test (at the earliest from the age of 17 years); if this test is passed, a provisional driving licence is issued, but does not yet constitute an entitlement to drive solo. Novice drivers are initially only permitted to drive together with an experienced accompanist for a period of three months. After the transition to solo driving, protective regulations apply for novice drivers within the framework of an autonomous learning phase. A driving licence free of special regulations is granted two years after taking the driving test.

Framework conditions

Minimum age requirements

The minimum age for the commencement of practical driving instruction is 16 years and 6 months. The same minimum age requirement applies for admission to take the knowledge test. The driving test can be taken from the age of 17 years, although solo driving is then still not possible until the age of 17 years and 3 months. A driving licence free of special regulations for novice drivers is granted at the earliest from the age of 19 years.

Proof of fitness to drive

Novice drivers must pass a general medical examination, as well as an eyesight test conducted by an ophthalmologist.

Duration and costs

No data were received on the average duration of the supervised learning phase; after passing the driving test, however, driving is only permitted under supervision for a period of at least three months. After the transition to solo driving, novice drivers are subject to protective regulations for a further 21 months. No data were received on the costs incurred to obtain a driving licence.

Teaching and learning forms

Theory classes

The attendance at theory classes is optional. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

Road safety education in schools

Novice drivers are able to attend a specific training programme within the framework of general school education ("Driver Education Programme").

Independent theory learning

A text book which is recommended to novice drivers as an aid to independent theory learning and test preparation can be purchased from general bookstores.

Practical driving instruction

Practical driving instruction is mandatory. At least 28 course units (of 40 minutes each) must be completed. Novice drivers typically take between 30 and 40 lessons. Practical driving instruction is offered exclusively by private, commercial driving schools and given by a professional driving instructor

Accompanied driving

All novice drivers are permitted to drive exclusively under the supervision of an experienced accompanist for a period of three months after passing the driving test. Prerequisites for the granting of a provisional driving licence are the prior completion of mandatory practical driving instruction in a driving school and passing of the corresponding knowledge and driving tests. The vehicle used must be marked as a learner's vehicle during the period of accompanied driving.

The accompanist must be at least 24 years of age, and must have held a class B driving licence for at least five years. If the accompanist is 30 years or older, it is sufficient to have held a driving licence for three years.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, the vehicle must be marked as a novice driver's vehicle, and it is not permitted to carry more than two passengers unless an experienced driver is also present in the vehicle. Furthermore, novice drivers are only permitted to drive under the supervision of an experienced accompanist, not solo, during the first three months after receiving a driving licence (see "Accompanied driving" above).

Within the framework of the generally applicable demerit points system, the sanctions for recorded traffic offences include driving bans and the stipulation that the knowledge or driving test be repeated. In the latter case, the novice driver again receives only a two-year provisional driving licence in the first instance.

Forms of testing

Knowledge test

The knowledge test is realised as a "paper-and-pencil" test. To pass, at least 26 of the total of 30 test items (multiple-choice questions) must be answered correctly. The test contents cover, among other things, the subject areas "Traffic rules and regulations", "Road signs", "Familiarity with the vehicle", and "Safe and correct behaviour on the

road". If the test is not passed, a repeat attempt is permitted on the next day.

Driving test

The driving test takes place exclusively in real traffic, and the duration of the test drive is approximately 30 minutes. The driving instructor is permitted to be present in the vehicle during the driving test. The driving test examiner takes the front passenger seat.

Within the framework of technical preparation of the vehicle, it is determined whether the novice driver is able to perform certain technical or safety checks on the vehicle, and whether they adjust the safety belt, head-rests, seat position and rear-view mirror correctly.

The test drive follows a flexible route. Basic driving manoeuvres which may be tested include "Turning the vehicle to face the other way" and "Parking". Over the course of the test drive, the driving test examiner assesses, for example, the candidate's vehicle operation abilities, safe and appropriate behaviour on the road, the negotiation of junctions and overtaking. Speed regulation, safe clearances to other vehicles and behaviour towards pedestrians are further aspects which are taken into account in the assessment of test performance.

The test result is not announced immediately at the end of the test; it must be requested by the candidate by telephone, and can also be obtained via the Internet from the evening of the day of the test. If the test is not passed, a repeat attempt is permitted at the earliest after two weeks.

Quality assurance

Training of driving test examiners

The profession of driving instructor is subject to a minimum age requirement of 25 years, advanced-level school education (constituting the entitlement to study at a university) and possession of a driving licence for at least eight years. An aptitude test must be passed before admission to professional qualification training.

Italy

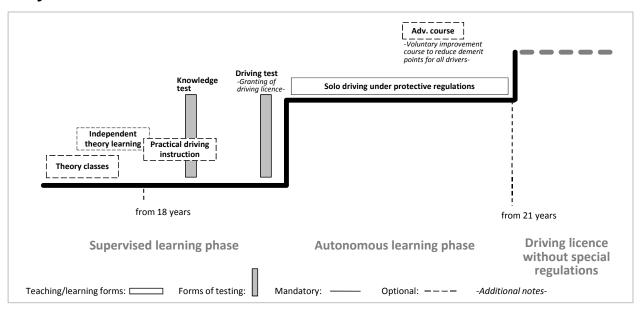


Fig. 21: System of novice driver preparation in Italy

Overview

Novice drivers must apply for a learner driving licence ("Foglio Rosa"), which entitles them to take practical driving instruction under the supervision of a lay trainer or professional driving instructor (at the earliest from the age of 18 years). It is possible to prepare for the required knowledge test either by attending theory classes in a driving school or through independent theory learning. After successful completion of the knowledge test, the novice driver proceeds to a driving test. Passing of this driving test founds an entitlement to drive solo under protective regulations (at the earliest from the age of 18 years). A driving licence free of special regulations for novice drivers is granted after a three-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for the issuing of a learner driving licence and thus the commencement of practical driving instruction is 18 years. The same minimum age requirement applies for admission to the knowledge and driving tests. A driving licence free of special regulations for novice drivers is granted 36 months after taking the driving test, i.e. at the earliest from the age of 21 years.

Proof of fitness to drive

Novice drivers must pass a general medical examination, which includes eyesight and hearing tests, as well as an assessment of their general psychological and physical health status. The cor-

responding health-related fitness to drive must be confirmed by way of a doctor's certificate.

Duration and costs

No data were received on the average duration of the supervised learning phase and the costs incurred to obtain a driving licence. The learner driving licence ("Foglio Rosa") is valid for six months. The transition to solo driving is followed by a 36month autonomous learning phase.

Teaching and learning forms

Theory classes

The attendance at theory classes is not prescribed. If a novice driver chooses to attend optional classes in a driving school, however, at least 20 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

Independent theory learning

It is possible to prepare for the knowledge test exclusively by way of independent theory learning. No information was received on the available teaching/learning media and the public accessibility of the test items.

Practical driving instruction

Practical driving instruction with a professional driving instructor is not prescribed. After obtaining a learner driving licence (at the earliest from the age of 18 years), novice drivers are able to make

use of the optional training offered by commercial driving schools.

It is equally possible for a novice driver to learn under the supervision of a lay trainer. A lay trainer must be at least 28 years old and must have held a class B driving licence for at least 10 years. During lay training, the vehicle must be marked as a learner vehicle; furthermore, the hand brake and ignition lock must be within reach of the lay trainer.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of three years. During this period, they are subject to a speed limit of 90 km/h on main roads outside built-up areas, whereas other drivers are permitted to drive at 90 or 110 km/h, depending on whether the road is a dual carriageway. On motorways, novice drivers are not permitted to exceed 100 km/h, compared to the general speed limit of 130 km/h.

Within the framework of a generally applicable points system, all drivers receive a "credit" of 20 points, from which between two and ten points are deduced for any traffic offences. Novice drivers are subject to stricter regulations than experienced drivers: Double points are deducted for any offences committed during the autonomous learning phase.

If a driver's points account falls to zero, his driving licence is withdrawn for a period of two to eight months, and both the knowledge test and the driving test must be repeated to regain the licence. Six forfeited points can be recovered by attending a 12-hour improvement course in a driving school. After two years without traffic offences, the original credit of 20 points is restored. It is furthermore possible to build up a credit of up to 30 points: Two points are added every two years if no traffic offences have been recorded.

Advanced training course

After the commencement of solo driving, any traffic offences committed are documented in a points system. All drivers can attend a 12-hour course to regain previously forfeited points.

Forms of testing

Knowledge test

The knowledge test is realised as a computerbased test. To pass, at least 26 of the total of 30 answers given must be correct. The test items are presented in the form of multiple-choice questions (total of ten test items), for which each of the three answer options must be marked as either true or false. The candidate is allowed 30 minutes to complete the test.

If the knowledge test is not passed, a repeat attempt is permitted at the earliest after one month.

Driving test

The total duration of the driving test is around 30 minutes, of which 25 minutes are assigned to the actual test drive. The test vehicle is provided by the novice driver himself or by the driving school responsible for training; it must be equipped with dual controls. Novice drivers who have not attended formal driving school training are able to hire a suitable test vehicle from a driving school.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years. A distinction is made between driving instructors who are only permitted to provide practical driving instruction, and those who are also entitled to give theory classes. The latter must hold a certificate of advanced-level school education (university entrance qualification), whereas the prerequisite for the former is general secondary education.

All driving instructors must complete mandatory professional qualification training. This training comprises theoretical and practical components with a total scope of 150 hours. The qualification test comprises written and oral knowledge tests and a driving test. At least eight hours of annual further training must be attended for renewal of the driving instructor licence.

Latvia

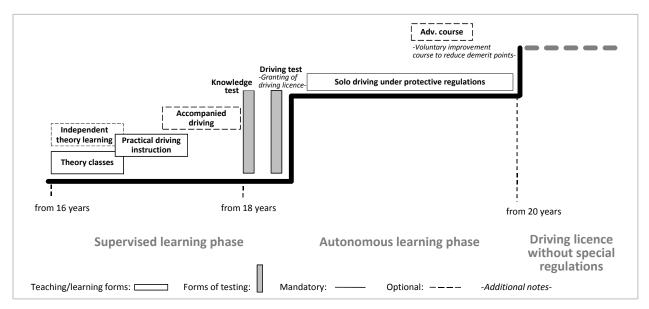


Fig. 22: System of novice driver preparation in Latvia

Overview

During the supervised learning phase, novice drivers attend mandatory theory classes and practical driving instruction with a professional driving instructor (at the earliest from the age of 16 years). In addition, they are permitted to practice under the supervision of a lay trainer and to gather practical driving experience by way of accompanied driving. It is finally necessary to take a knowledge test and a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo under protective regulations during a two-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction in a driving school, and likewise for the commencement of lay driver training, is 16 years. The knowledge and driving tests can be taken from the age of 18 years. A driving licence free of special regulations for novice drivers is granted 24 months after taking the driving test, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Driving licence applicants must pass eyesight and hearing tests within the framework of a medical examination. In addition, they must present a self-report on any current or past physical or psychological disorders which could affect their fitness to drive.

Knowledge of first aid

Novice drivers must complete a first aid course with a scope of 15 hours. Corresponding courses are offered and completed separately from the prescribed driving school training.

Duration and costs

The supervised learning phase must be spread over a period of at least five weeks. On average, around seven weeks pass before novice drivers take the driving test and commence solo driving. Protective regulations apply during the first 24 months after obtaining a driving licence. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of between 500 and 560 Euros.

Curriculum

A curriculum describes the overarching content areas of the theory classes and practical driving instruction. In addition, it specifies the number of mandatory course units which are to be devoted to each individual subject area. The actual realisation of classes and instruction to convey this content remains the responsibility of the driving instructor.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 55 course units (of 45 minutes each) must be completed. Novice drivers typically take two additional lessons beyond this minimum scope as preparation for the knowledge test. Theory classes are offered by commercial driving

schools and given by a professional driving instructor.

The typically used teaching/learning methods include lecture presentations, written progress assessment on a PC, class discussions and the completion of test sheets; the latter is realised in the form of homework. Slides and test sheets are the teaching/learning media used.

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. Text books/manuals are offered by test organisations and commercial publishers to support independent theory learning; the contents of such text books are based on the content areas specified in the curriculum. Novice drivers are furthermore able to practice the answering of test items for the knowledge test by way of an Internet-based training program on the test organisation website. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 14 course units (of 60 minutes each) must be completed. Practical driving instruction is offered by commercial driving schools, but may be supplemented by instruction given by a lay trainer.

The teaching/learning methods typically used by professional driving instructors are driving on a practice ground, driving on flexible routes in real traffic, and demonstrations by the instructor himself. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls and a second set of mirrors. Furthermore, a sign must be mounted on the roof to identify the vehicle as a learner vehicle. In accordance with the curriculum, practical driving instruction takes place initially in a low-traffic environment, before later progressing to environments with medium to high traffic densities. Driving in unfavourable weather conditions is a further component of practical driving instruction.

The option to supplement the practical driving instruction given by a professional driving instructor with additional learning under the supervision of a lay trainer, at the earliest from the age of 16 years, is used by around 80 per cent of novice drivers. The prerequisite for lay driver training is that the novice driver has previously completed a set number of the mandatory theory classes. Within the framework of lay driver training, driving abroad is forbidden, the hand brake must be within reach of the lay trainer, and the vehicle must be marked

accordingly as a learner vehicle. A lay trainer must be at least 21 years old and must have held a class B driving licence for at least three years; he must furthermore carry a corresponding permit issued by the traffic authorities.

Accompanied driving

The gaining of longer-term practical driving experience by way of accompanied driving is promoted by the period of two years between the earliest possible age for the commencement of practical driving instruction and the earliest age for admission to take the driving test. No empirical data were obtained on the actual amount of driving done.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this time, they are subject to a lower maximum permissible blood alcohol content of 0.02 per cent when driving. Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations. Possible sanctions in response to traffic offences are monetary fines, driving bans and extension of the autonomous learning phase by a further two years. If a driving ban of more than three months is imposed, the knowledge test and driving test must be repeated; the same applies in case of all alcohol- or drug-related offences.

Advanced training course

Course offers are available as a means to earn reduction of the demerit points on a driver's record; these courses are open to both novices and experienced drivers.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 27 of the total of 30 test items (true/false questions, multiple-choice questions) must be answered correctly. The candidate is allowed 30 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective.

The test result appears on the screen at the end of the test, alongside feedback on the test items which were not answered correctly. If the test is not passed, a repeat attempt is permitted at the earliest on the next day. The pass rate for the knowledge test is 80 per cent.

Driving test

The driving test takes place on a practice ground and in real traffic. The total test duration is around

45 minutes, of which at least 25 minutes are assigned to the actual test drive. The driving instructor is not permitted to be present in the vehicle during the driving test. The driving test examiner takes the front passenger seat.

The driving test begins on a practice ground; within the framework of technical preparation of the vehicle, the novice driver must first answer a question relating to vehicle safety checks, either verbally or by demonstrating a particular action (e.g. checking the engine oil level or the tyres). The practice ground is also used for the testing of two basic driving manoeuvres. "Reverse parking parallel to the direction of traffic" is a component of every test, while the driving test examiner uses a computer to select the second required manoeuvre at random from the following: "Driving up to a ticket dispenser or payment machine", "Turning within a narrow radius" or "Driving off uphill". The novice driver is allowed two attempts at each basic driving manoeuvre to be demonstrated.

The test drive follows a flexible route and covers roads both within and outside built-up areas. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

The assessment of test performance takes into account the aspects of vehicle control, traffic observation, speed adaptation, vehicle positioning, signals given to other roads users, and an energy-saving, environmentally aware style of driving. Three categories of driving error are distinguished: "Minor errors", for which one penalty point is recorded, "Medium errors", which carry four penalty points, and "Serious errors", which are weighted with ten penalty points. The driving test is deemed failed if more than nine penalty points are accumulated.

At the end of the test drive, the test result is communicated during a concluding discussion. In addition, the novice driver receives a test report. If the test is not passed, a repeat attempt is permitted at the earliest on the next day. The pass rate for the driving test is 50 per cent.

Quality assurance

Training of driving instructors

With regard to professional qualifications, a distinction is made between instructors who provide exclusively practical driving instruction, and those

who also give theory classes. In both cases, admission to the profession is subject to a minimum age requirement of 21 years and possession of a driving licence for at least three years; candidates who wish to give both theoretical and practical instruction are furthermore required to have successfully obtained a university degree.

Driving instructors must complete professional qualification training. For practical driving instructors, this training comprises 126 hours of theory classes and 26 hours of practical instruction. A test is similarly prescribed and consists of an oral theoretical section and a driving test. The prescribed training for driving instructors who are additionally entitled to provide theoretical instruction comprises 132 hours of theory classes and is completed with an oral theory test. All driving instructors must attend three days of further training every five years.

Auditing of driving schools

When a driving school is opened, the teaching materials and classrooms are subjected to corresponding inspection. Later, further audits are performed at random intervals.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 21 years who have successfully obtained a university degree and have held a driving licence for at least three years.

Training is not prescribed, but the test organisation offers preparatory courses geared to the mandatory professional qualification tests (oral and written theoretical tests and a driving test); such courses are spread over a period of around three months. Driving test examiners must attend two days of further training per year.

Quality assurance measures in test organisations

Within the framework of internal quality assurance evaluations, the proportions of correct answers given to individual test items of the knowledge test are analysed on an annual basis. The test procedures for both the knowledge test and the driving test are subject to internal and external evaluations whenever this is deemed expedient.

Lithuania

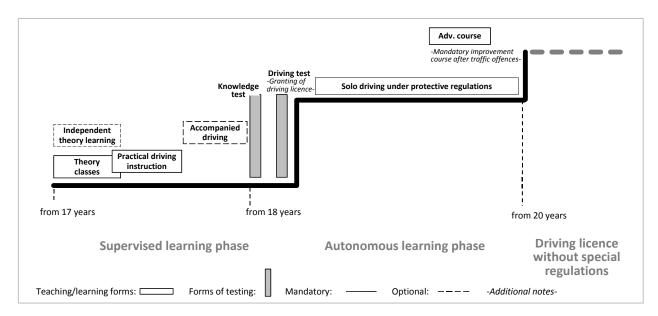


Fig. 23: System of novice driver preparation in Lithuania

Overview

During the supervised learning phase, novice drivers attend mandatory theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 17 years). After completing driving school training, they are able to gather further practical driving experience by way of accompanied driving. It is then necessary to take a knowledge test (at the earliest from the age of 18 years) and finally a driving test. Passing of the driving test marks the transition to a two-year autonomous learning phase with special protective regulations applicable to novice drivers.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction in a driving school is 17 years. The knowledge and driving tests can be taken from the age of 18 years. A driving licence free of special regulations for novice drivers is granted at the earliest after a 24-month autonomous learning phase, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Driving licence applicants are required to undergo eyesight and hearing tests, as well as a psychological examination.

Duration and costs

No data were received on the average duration of the supervised learning phase. The autonomous learning phase, during which protective regulations apply for novice drivers, covers a period of 24 months, meaning that a driving licence free of special regulations can be obtained at the earliest from the age of 20 years. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 435 Euros.

Curriculum

A curriculum is specified by the responsible traffic authority and contains stipulations relating to driving school training and the tests to be passed.

Teaching and learning forms

Theory classes

It is generally a mandatory requirement to attend theory classes. If the novice driver holds a certificate of secondary school education, however, the necessary knowledge may also be acquired exclusively by way of independent theory learning. Overall, around 90 per cent of novice drivers attend theory classes. A total of 60 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and within the framework of state-run education.

The typically used teaching/learning methods include lecture presentations, oral and written progress assessment, class discussions, the completion of test sheets, and demonstrations by the instructor. Slides and photos, real videos, virtual driving scenarios, test sheets, technical teaching models, models of traffic and road infrastructures,

and computer-based training programs are the teaching/learning media used.

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. Printed and electronic media are offered by commercial publishers to support the novice driver in this independent theory learning. The test items used in the knowledge test are not publicly accessible.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 20 course units must be completed. Practical driving instruction is offered exclusively by commercial driving schools. The typically used teaching/learning methods include driving on a practice ground, driving on standard and flexible routes in real traffic, "commentary driving" and demonstrations by the instructor. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls and marked accordingly as a learner vehicle.

Accompanied driving

Around 50 per cent of novice drivers make use of the opportunity to drive under the supervision of an experienced accompanist (at the earliest from the age of 17 years). The prerequisite for participation in accompanied driving is that the novice driver has already completed the mandatory driving school training. Within the framework of accompanied driving, the vehicle must be marked as a learner vehicle, the hand brake must be within reach of the accompanist, and additional insurance cover must be obtained.

The accompanist must have held a class B driving licence for at least five years and must be a family relative of the novice driver. He must furthermore have no serious traffic offences on record.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this time, they must observe a reduced speed limit of 70 km/h on roads outside built-up areas and 90 km/h on motorways. The vehicle used must furthermore be marked as a novice driver's vehicle.

Advanced training courses

The requirement to attend an improvement course may be imposed in case of traffic offences.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 24 of the total of 30 test items (multiple-choice questions) must be answered correctly. The candidate is allowed 30 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

The test result appears on the screen at the end of the test: Feedback is also given on the test items which were answered correctly or incorrectly, and on the total score attained. If the test is not passed, a repeat attempt is permitted at the earliest on the next day. After three unsuccessful attempts, the candidate must attend the prescribed theory classes once more. The pass rate for the knowledge test is 78 per cent.

Driving test

The driving test takes place on a practice ground and in real traffic. The test drive lasts at least 25 minutes. The driving instructor is not permitted to be present in the vehicle during the driving test. The driving test examiner takes the front passenger seat.

The driving test begins on a practice ground; within the framework of technical preparation of the vehicle, the novice driver must first demonstrate the checking of the tyres, steering, brakes, fluid levels (oil, coolant, windscreen washers), lights, turn indicators or horn. The practice ground is also used for testing of the basic driving manoeuvres "Reverse parking (parallel or at an angle to the direction of traffic)", "Three-point turn", "Driving off uphill", "Reversing around a corner to the left or right" and "Braking accurately to a stop (after accelerating to 30 to 40 km/h)".

The test drive follows a standard route in real traffic and covers roads both within and outside built-up areas. Each test centre has at least four standard routes at its disposal; the route for a particular test is drawn at random by the novice driver. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

For assessment of the test performance, a distinction is made between "Non-critical errors", "Repeated errors" and "Critical errors". The driving test is deemed failed if the driving test examiner observes nine or more "Non-critical errors" or any "Critical error" or "Repeated error". A negative result is similarly recorded if four or more mistakes

are already made during the technical preparation of the vehicle.

At the end of the test drive, the test result is communicated during a concluding discussion and the driving test examiner explains the driving errors observed. In addition, the novice driver receives a test report. If the test is not passed, a repeat attempt is permitted at the earliest on the next day. The pass rate for the driving test is 42 per cent.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to possession of a driving licence for at least three years, as well as the completion of advanced-level school education (constituting the entitlement to study at a university).

Driving instructors must complete professional qualification training with a scope of around 210 hours. To be entitled to give theory classes, it is furthermore necessary to pass a written knowledge test and to demonstrate teaching abilities by way of sample lessons. Driving instructors are required to attend 30 hours of further training every five years.

Auditing of driving schools

When a driving school is opened, the teaching materials, classrooms, training vehicles and the associated practice ground are subjected to corresponding inspection. Later, annual audits are performed to monitor the standard of the teaching materials and classrooms, as well as the training vehicles and the documentation of the training provided.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 23 years who have successfully completed either a degree course in an engineering discipline, education or law, or other higher education in the field of the traffic sciences. Candidates are furthermore required to have held a driving licence for at least three years and must not be working as driving instructors.

A two-week training course is prescribed, and driving test examiners must attend further training every three years.

Quality assurance measures in test organisations

The test items used in the knowledge test are reviewed by experts approximately every three years. The realisation of the driving test is a subject of internal evaluations, for which a further driving test examiner participates in regular driving tests as an observer and elaborates his own assessment of the candidate's test performance for comparison with the responsible examiner's decision.

Further development

For further development of the driving test, it has been proposed that novice drivers should give a self-assessment of their driving competence at the beginning of the driving test.

Luxembourg

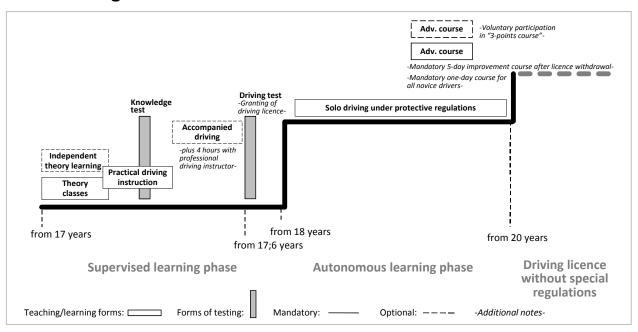


Fig. 24: System of novice driver preparation in Luxembourg – "Conduite Accompagnée" model

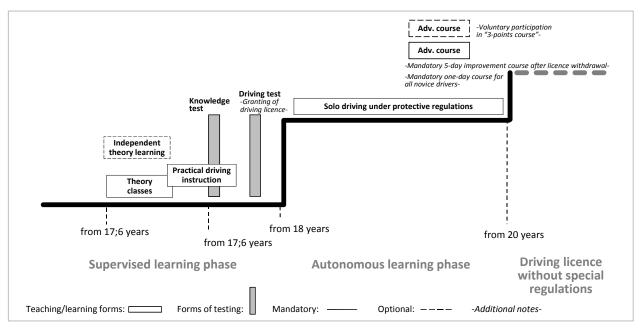


Fig. 25: System of novice driver preparation in Luxembourg – model with training exclusively in a driving school

Overview

Novice drivers are able to choose between a model with driver training exclusively in a driving school and a model with driving school training and a subsequent phase of accompanied driving ("Conduite Accompagnée" – "CA"):

 In the case of driver training exclusively in a driving school, the supervised learning phase for novice drivers begins (at the earliest from the age of 17 years and 6 months) with mandatory theory classes and the prescribed practical driving instruction with a professional driving instructor. At least two hours of theory classes must be completed before it is possible to commence practical driving instruction. The knowledge test must be taken at the latest before the 11th session of practical driving instruction. Once the full mandatory scope of training has been

completed in the driving school, the novice driver is permitted to attempt the driving test (at the earliest from the age of 17 years and 6 months).

If the "CA" model is chosen, completion of the mandatory driving school training (at the earliest from the age of 17 years) and passing of the knowledge test are followed initially by a period of accompanied driving. At least four further sessions of practical driving instruction must be completed with a professional driving instructor before it is possible to take the driving test (at the earliest from the age of 17 years and 6 months).

Under both models, passing of the driving test founds an entitlement to drive solo under protective regulations (at the earliest from the age of 18 years) during a two-year autonomous learning phase. Within this phase, completion of an advanced training course ("driving safety course") is prescribed for all novice drivers.

Framework conditions

Minimum age requirements

The minimum age for commencement of the mandatory driving school training and admission to the knowledge test is 17 years for novice drivers who choose the "AC" model. Training exclusively in a driving school can be commenced at the earliest from the age of 17 years and 6 months. In both cases, the driving test can be taken at the earliest from the age of 17 years and 6 months, although solo driving is not permitted until the novice driver reaches the age of 18 years. A driving licence free of special regulations for novice drivers is granted at the earliest after 24 months of solo driving, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Novice drivers must furnish proof of their healthrelated fitness to drive (e.g. adequate vision) by way of a medical examination conducted by a doctor accredited by the Ministry of Transport.

Duration and costs

On average, around four months pass before a novice driver commences solo driving in case of training exclusively in a driving school, compared to around 12 months in the case of participation in the "CA" model. Protective regulations apply during the first 24 months after obtaining a driving licence. The average costs incurred by a novice driver to obtain a driving licence amount to at least 1,000 Euros.

Curriculum

The applicable road traffic legislation serves as the basis for preparation for the knowledge and driving tests. The corresponding content is structured didactically in a text book ("Code de la Route populaire"); the driving schools usually make use of this text book in their classes and instruction.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 12 course units (of 60 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor. The typically used teaching/learning methods include lecture presentations and class discussions. Text books, real videos and computer-based training programs are the teaching/learning media used.

Independent theory learning

Novice drivers prepare for the knowledge test not only within the framework of theory classes, but equally by way of independent theory learning. The content serving preparation for the knowledge and driving tests is predefined by the applicable road traffic legislation; corresponding knowledge acquisition is supported by the text book "Code de la Route populaire", in which the legal foundations are presented in an appropriate didactic form. The test items used in the knowledge test are not publicly accessible, but similar test items are available to aid preparation for the knowledge test.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. In the case of training exclusively in a driving school, at least 16 course units (of 60 minutes each) must be completed. Under the "AC" model, novice drivers are initially only required to complete at least 12 course units; four further course units are then completed at a later date before taking the driving test. Practical driving instruction is offered exclusively by commercial driving schools.

The typically used teaching/learning methods include driving on a practice ground, driving on standard and flexible routes in real traffic, and self-assessments of driving competence by the novice driver. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls and additional mirrors for the driving instructor, and must furthermore be marked as a learner vehicle. The contents of practical driving instruction are not prescribed, and are instead determined individually by the driving school. The overarching requirement is that the content to be conveyed should cover the demands

of road traffic as fully as possible; this also includes development of an environmentally aware style of driving.

Accompanied driving

Around 20 per cent of novice drivers make use of the opportunity to gain further driving practice under the supervision of an experienced accompanist before their transition to solo driving – at the earliest from the age of 17 years and after successfully completing driving training and a knowledge test ("AC" model).

The accompanist must have held a class B driving licence for at least six years, must be at least 24 years old and must not have committed any serious traffic offences during the previous five years. He must furthermore be a family relative of the novice driver and is required to participate in at least two lessons of the latter's formal practical driving instruction.

Within the framework of accompanied driving, an accompanist must always be present in the front passenger seat, the vehicle must be marked as a learner vehicle, additional insurance cover must be obtained, and the vehicle must be fitted with an additional rear-view mirror for the accompanist. It is not permitted to drive abroad or at night between 11 p.m. and 6 a.m. The novice driver must observe reduced speed limits of 75 km/h on roads outside built-up areas and 90 km/h on motorways, and a lower maximum permissible blood alcohol content of 0.02 per cent applies for both the novice driver and the accompanist.

The novice driver's learning progress must be documented by the accompanist and subsequently communicated to the professional driving instructor. At least four more sessions of practical driving instruction must be completed with the professional driving instructor before taking the driving test.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. This initial period may be extended by a further 24 months in case of traffic offences. During this phase, novice drivers must observe a lower maximum permissible blood alcohol content of 0.02 cent when driving, and must furthermore attend a driving safety training course (see below). Traffic offences are documented by way of a demerit points system. If a maximum permissible total of 12 penalty points is exceeded, the driving licence is withdrawn for 12 months. The return of a withdrawn licence is subject to completion of an improvement course. It is also possible

to attend voluntary improvement courses as a means to earn reduction of the number of penalty points on record.

Advanced training course

It is a mandatory requirement for all novice drivers to attend at a one-day advanced training course ("driving safety training") with a scope of seven hours during the autonomous learning phase. The course can be taken at the earliest three months after the commencement of solo driving, but must be completed before the end of the two-year autonomous learning phase. The typically used teaching/learning methods include group discussions, external and self-assessments, and driving demonstrations by the instructor. The participating novice drivers also speak about their own experiences while driving. The advanced training course is realised in the form of group instruction, and is conducted by specially qualified driving instructors ("coaches") and traffic psychologists. The topics covered during the advanced training include "Selfassessment of driving competence", "Observation and steering techniques", "Selection of an appropriate speed", "Keeping a safe distance", "Emergency braking", "Braking and avoiding obstacles on slippery roads" and "Behaviour and conseguences of a skidding vehicle".

In case of driving licence withdrawal after reaching 12 penalty points (see above), completion of a five-day improvement course ("awareness training") is a prerequisite for lifting of the driving ban. It is also possible to earn a reduction of the number of penalty points on record by attending a voluntary improvement course (so-called "3 points course").

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 16 of the total of 20 test items (multiple-choice questions, true/false questions, sorting questions, gap-fill questions requiring numerical inputs) must be answered correctly. The candidate is allowed 20 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from the driver's perspective.

At the end of the knowledge test, the test result is displayed on the screen and the candidate receives a corresponding written report. This report contains feedback to the novice driver on the test items which were not answered correctly, subject areas in which knowledge deficits were revealed, and the total number of points attained. The pass rate for the knowledge test is 51 per cent. If the

test is not passed, the novice driver must repeat half of the prescribed number of theory classes (six course units).

Driving test

The driving test takes place in real traffic and on a practice ground. The total test duration is around 40 minutes, of which around 30 minutes are assigned to the actual test drive. During the driving test, the driving instructor sits in the front passenger seat and assumes legal responsibility for the vehicle. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, the novice driver must demonstrate correct adjustment of the mirrors and safety belts, the use of electrical vehicle functions (automatic wiper setting, automatic light adjustment, etc.) and the correct procedures when stopping and leaving the vehicle (hand brake, engage gear, steering lock, observing traffic from behind when opening the door).

At least two of the following basic driving manoeuvres are tested either in real traffic or on a practice ground: "Reversing around a corner to the left or right", "Turning to face the other direction using the forward and reverse gears", "Parking (parallel, obliquely or at right angles to the kerb) and leaving a parking space using the forward and reverse gears, both on the flat and uphill or downhill" and "Braking accurately to a stop (optionally with the maximum possible deceleration)".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner. "Independent driving" to a previously specified destination is similarly a component of the test drive.

For the observation of test performance, a distinction is made between vehicle control and driving in compliance with the road traffic laws. Test performance is assessed by deducting penalty points from an initial credit for any driving errors observed. To pass the driving test, the candidate must retain at least 45 of his original credit of 60 points. Driving errors are weighted according to their severity and lead to the deduction of 3, 5, 10 or 20 penalty points. The test is terminated prematurely and thus deemed failed as soon as any "20-point error" is observed (e.g. failure to observe right-of-way, passing a red traffic light).

At the end of the test drive, a concluding discussion is held only if the candidate was not successful; in addition to communication of the test result, this serves to provide feedback on the incorrect

behaviour observed and to discuss possible explanations for driving errors from the perspective of the novice driver. The novice driver only receives a test report if the test was not passed. In this case, the novice driver must complete at least eight further units of practical driving instruction with a professional driving instructor before a repeat attempt. The pass rate for the driving test is 55 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 20 years, a certificate of secondary-level school education and possession of a class B driving licence for at least two years. A health examination is prescribed and corresponds to the examination which is also stipulated for novice drivers (see "Proof of fitness to drive" above). Furthermore, there must be no criminal or traffic-related offences on record against the candidate.

Driving instructor training is spread over a period of two years, with around eight hours of training per week. It comprises both theoretical and practical instruction, and is offered both through technical colleges and in specifically approved driving schools. A test must be passed at the end of the training; this test consists of a written theoretical section and a driving test, alongside sample demonstrations of theoretical and practical driving instruction. There is no legally stipulated obligation to attend further training.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection. Later, further audits of the classrooms, teaching materials and training vehicles are performed at random intervals.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 24 years who have successfully obtained a degree from a technical university, hold a driving licence for all vehicle classes and pass an entry test at the beginning of the training programme. The required knowledge (e.g. on road traffic legislation or vehicle engineering) must be demonstrated in written and oral tests. Driving test examiners must attend further training on at least five days every five years; the actual scope of further training completed over this period usually amounts to 15 days. Approximately equal proportions are devoted to theoretical and practical aspects.

Quality assurance measures in test organisations

Knowledge tests and driving tests are conducted by the "Société Nationale de Contrôle Technique" ("S.N.C.T."). New test items for the knowledge test are developed within the framework of a working group, which at the same time carries editorial responsibility of the training text book ("Code de la Route populaire", see above). The quality of the driving test is monitored by way of unannounced internal supervisions and through comparison of the test statistics of individual driving test examiners.

Malta

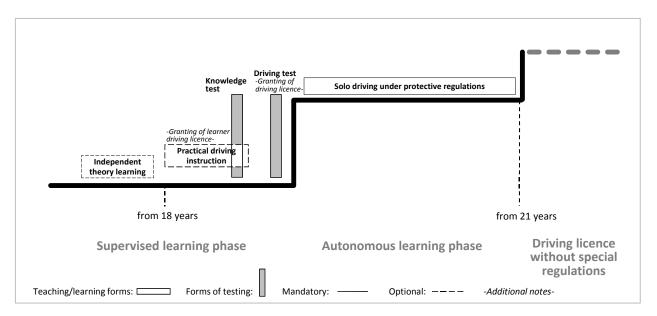


Fig. 26: System of novice driver preparation in Malta

Overview

Novice drivers must apply for a learner driving licence in order to be able to commence practical driving instruction (at the earliest from the age of 18 years) under the supervision of a professional driving instructor or lay trainer. They prepare for the knowledge test by way of independent theory learning, and subsequently take also a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo, albeit subject to special protective regulations for novice drivers for an initial period of three years.

Framework conditions

Minimum age requirements

The minimum age for the issuing of a learner driving licence and thus the commencement of practical driving instruction is 18 years. The same minimum age requirement applies for admission to the knowledge and driving tests and for the subsequent commencement of solo driving under protective regulations. A driving licence free of special regulations for novice drivers is granted 36 months after taking the driving test, i.e. at the earliest from the age of 21 years.

Proof of fitness to drive

Driving licence applicants must undergo a medical examination. In addition, the candidate's eyesight is tested at the beginning of the driving test, by requiring that a number plate be read from a distance of 20 metres.

Duration and costs

No data were received on the average duration of the supervised learning phase. A learner driving licence is valid for a period of 12 months; it can subsequently be extended for a further 12 months. The transition to solo driving is followed by a 36-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 230 Euros.

Teaching and learning forms

Independent theory learning

Novice drivers prepare for the knowledge test by way of independent theory learning. The teaching/learning media available to novice drivers to support their corresponding knowledge acquisition are the applicable road traffic legislation ("Highway Code") and a CD with the test items of the knowledge test.

Practical driving instruction

Holders of a learner driving licence are entitled to commence practical driving instruction under the supervision of either a lay trainer or a professional driving instructor. Training drives are not permitted on Sundays or official public holidays.

In case of training with a professional driving instructor, the training progress and the scope of instruction given must be documented by the driving instructor. The contents of practical driving instruction are based on the learning objectives for

novice drivers which are specified in the accreditation guidelines for driving instructors.

A lay trainer must be at least 25 years old and must have been in possession of a class B driving licence for at least five years. The training vehicle must be marked as a learner vehicle, and a certificate of insurance cover for the novice driver and the accompanist must be carried when driving.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of three years. During this period, a demerit points system applies for any traffic offences committed. If more than 12 demerit points are accumulated, the provisional driving licence is withdrawn temporarily. Re-issuing is possible at the earliest after three months.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 30 of the total of 35 test items must be answered correctly. The candidate is allowed 45 minutes to complete the test. At the end of the knowledge test, the novice driver receives a report with the test result. If the knowledge test is not passed, a repeat attempt is permitted at the earliest after three days. The pass rate for the knowledge test is 75 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total duration of the driving test is around 40 minutes, of which between 25 and 30 minutes are assigned to the actual test drive. The driving test examiner takes the front passenger seat, and the driving instructor or lay trainer is also permitted to be present in the vehicle during the driving test.

At the beginning of the driving test, the candidate must read a number plate from a distance of 20 metres as proof of adequate eyesight. Within the framework of technical preparation of the vehicle, the driving test examiner asks two questions on safety checks before getting into the vehicle. One of these questions involves practical demonstration of a certain action ("Show me" question), for example checking the proper functioning of the signal horn or use of the same. The second question requires a verbal explanation ("Tell me" question), which could refer, for example, to the necessary steps to check the tyre tread (it is here expected that the candidate is able to specify the minimum required tread depth, and that he knows that a

visual tyre check must pay attention to signs of cracking). The questions to be answered are selected at random by the driving test examiner.

The novice driver may be asked to perform the following basic driving manoeuvres during the course of the test drive: "Emergency braking", "Leaving a parking space", "Reversing around a corner", "Reversing in a straight line", "Reverse parking (parallel or at an angle to the direction of traffic)" and "Turning in the road to face the other direction".

For the observation and assessment of test performance, the driving test examiner distinguishes between "Driving faults" (i.e. mistakes which are not in themselves potentially dangerous), "Grievous faults" (i.e. situations which are potentially dangerous) and "Perilous faults" (i.e. situations involving actual endangerment of the vehicle occupants or other road users). The test is deemed failed if the candidate commits one "perilous fault", one "grievous fault" or 16 or more "driving faults".

At the end of the test drive, the test result is communicated during a concluding discussion. In addition, the novice driver receives a test report. If the test is not passed, a repeat attempt is possible at the earliest after three weeks. The pass rate for the driving test is 50 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 19 years and possession of a class B driving licence for at least one year. A certificate of medical fitness must be presented, and there must be no criminal or traffic-related offences on record against the candidate.

Training is not prescribed for prospective driving instructors, but certain tests must be taken. These tests include an oral knowledge test, a driving test and a sample demonstration of practical driving instruction. The driving instructor licence is issued for a period of 10 years.

Netherlands

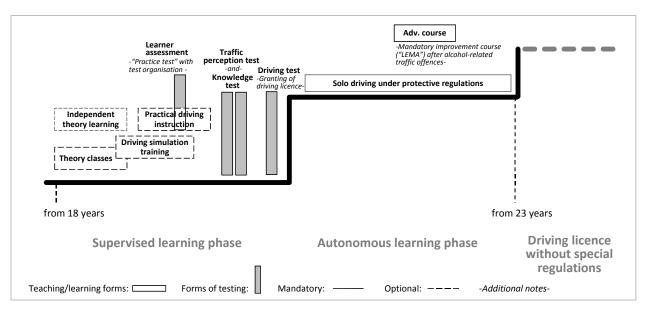


Fig. 27: System of novice driver preparation in the Netherlands

Overview

During the supervised learning phase, novice drivers attend optional theory classes or else acquire the corresponding knowledge by way of independent theory learning. Professional practical driving instruction (at the earliest from the age of 18 years) is similarly optional, but is de facto the only legally permissible form of driver training in real traffic. It is furthermore possible to make use of driving simulation training. After training, novice drivers must take a knowledge test and finally a driving test (at the earliest from the age of 18 years). In advance of the driving test, novice drivers have the opportunity to complete an optional learner assessment ("practice test"). Passing of the driving test founds an entitlement to drive solo; this solo driving is subject to protective regulations for the first five years. The subsequent driving licence free of special regulations for novice drivers is granted without time limitations, but drivers are recommended to take a voluntary test every ten years to keep their traffic-related knowledge up to date.

Framework conditions

Minimum age requirements

The minimum age for the commencement of practical driving instruction is 18 years. The same minimum age requirement applies for admission to the knowledge and driving tests and for the subsequent commencement of solo driving. A driving licence free of special regulations for novice driv-

ers is granted 60 months after taking the driving test, i.e. at the earliest from the age of 23 years.

Proof of fitness to drive

Novice drivers must submit a self-report with written answers to questions relating to their general health status. In addition, the candidate's eyesight is tested within the framework of the driving test, by requiring that a number plate be read from a distance of 25 metres.

Duration and costs

On average, around six months pass before novice drivers commence solo driving. Successful completion of the driving test is followed by a 60-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to around 1,800 Euros.

Curriculum

No binding, overarching curriculum exists, and thus the training contents are anchored in the teaching plans of the individual driving schools. Course design for practical driving instruction is furthermore a topic in the professional qualification training and tests for driving instructors (see "Training of driving instructors" below).

Within the framework of practical driving instruction, around three per cent of novice drivers make use of the training programme "Driver Training Stepwise" ("Rijopleiding in Stappen" – "RIS"), which divides the learning process into separate modules and provides for continuous evaluation of the driver's learning success. The programme

comprises the following four modules: "Vehicle operation and vehicle control", "Mastering simple driving manoeuvres and traffic situations", "Complex vehicle operation and control of complex driving manoeuvres and situations" and "Safe and responsible traffic participation". Learning is structured and supported by way of written "scripts", which provide descriptions of the action sequences required to master particular driving tasks. Learning progress is documented and the achievement of learning objectives is tested by the driving instructor upon completion of each module. The test at the end of the third module is conducted by an external driving test examiner (see "Learner assessment" below).

Teaching and learning forms

Theory classes

Theory classes are offered by commercial driving schools and given by a professional driving instructor. Attendance is not mandatory. Around 30 per cent of novice drivers choose to attend theory classes on a voluntary basis.

The typically used teaching/learning methods include lecture presentations, written and oral progress assessment, class discussions, the completion of test sheets, demonstrations by the instructor, and the setting of homework. Text books, slides, real videos, virtual driving scenarios, test sheets, models of traffic and road infrastructures, and computer-based and online training programs are the teaching/learning media used.

Independent theory learning

The media offered to support novice drivers in their independent theory learning include text books and computer-based training programs from commercial publishers, and online training programs from both the test organisation and commercial providers. The test items used in the knowledge test are not publicly accessible.

Practical driving instruction

Practical driving instruction is offered by commercial driving schools and given by professional driving instructors. Attendance is not mandatory. De facto, however, all novice drivers must make use of the option of voluntary attendance, as there is no legally permissible alternative for practical driving instruction in real traffic. On average, novice drivers take between 40 and 50 driving lessons.

The typically used teaching/learning methods include driving according to instructions given by the driving instructor on standard and flexible routes in real traffic, "commentary driving", practical demonstrations by the instructor, and driving to a gener-

ally specified destination without detailed instructions from the driving instructor ("independent driving"). Within the framework of the "RIS" training programme, the learning and practising of appropriate action sequences as solutions to different driving tasks is a characteristic teaching/learning method. To this end, "scripts" have been elaborated with explicit descriptions of the required action steps for a total of 39 driving tasks. The programme participants are also able to attend driving safety training on a special practice ground (e.g. driving on slippery roads).

Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual control pedals and additional mirrors for the driving instructor; it must furthermore be marked as a learner vehicle.

Driving simulation training

Around 15 per cent of novice drivers choose to attend optional driving simulation training. Driving simulation training is offered by commercial driving schools, and is normally arranged before the commencement of practical driving instruction in real traffic. The training is usually realised as a combination of group and individual instruction. The content conveyed covers subject areas such as traffic observation, vehicle operation, the execution of driving manoeuvres, environmentally aware driving, interactions with other road users and the mastering of hazardous situations.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of five years. During this period, they must observe a reduced maximum permissible blood alcohol content of 0.02 per cent when driving. Traffic offences are documented in a demerit points system, in addition to the primary sanctions imposed. A points system exists exclusively for novice drivers, but not for drivers in general. If three penalty points are accumulated, for example due to traffic offences such as tailgating or speeding, the possible measures are licence withdrawal and the obligation to either repeat tests or attend improvement courses.

Advanced training course

During the five-year autonomous learning phase, conspicuous driving behaviour in connection with alcohol-related offences and a blood alcohol content between 0.05 and 0.08 per cent may result in the novice driver being required to attend a special improvement course ("Light Educational Measure Alcohol and Traffic" – "LEMA"). This improvement course is realised with 8 to 12 participants and lasts a total of 7 hours (divided equally between

two days). Compared to the courses which are prescribed for drivers guilty of repeated alcohol-related behaviour and those stopped with a blood alcohol content above 0.08 per cent (three-day course "Educational Measure Alcohol and Traffic" – "EMA"), this improvement course is both shorter and less confrontive in its content.

Forms of testing

Traffic perception test

The first driving licence test for novice drivers is a computer-assisted test comprising firstly a traffic perception test (part 1) and immediately thereafter a knowledge test (part 2; see below).

To pass the first part of the test, at least 12 of the total of 25 test items must be answered correctly. These test items are presented in the form of photographs of traffic situations from the driver's perspective (with information in the mirrors and with turn indicators and speedometer visible.) The candidate is allowed eight seconds to select one of the following three reaction options: "Apply the brakes", "Take foot off the accelerator" or "Do nothing". The eight-second time limit applies separately for each individual test item.

Knowledge test

To pass the second part of the test, 35 of the total of 40 test items (true/false questions, multiple-choice questions, numerical inputs) must be answered correctly; between 8 and 15 seconds are allowed for the answering of each test item, depending on the question format. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

Once both parts of the test (traffic perception test, knowledge test) are completed, the supervisor informs the candidate on the test result; at the same time, the novice driver is given feedback on the subject areas in which knowledge deficits remain, alongside indication of those items from the traffic perception test which were answered incorrectly, too late, or not at all. If the test is not passed, the candidate receives a written report on the test result. The pass rate is 50 per cent.

Learner assessment

After completing approximately three-quarters of their practical driving instruction, novice drivers can attend a learner assessment in the form of a "practice test". Around 40 per cent of novice drivers make use of this opportunity. The practice test corresponds to the later actual test in terms of its duration, procedures and content (see below). It serves to provide novice drivers and their driving

instructors with feedback on the learning success achieved to date and any remaining competence deficits; last but not least, it is also an opportunity for the novice driver to reduce possible uncertainties and anxieties with regard to the pending driving test. The learner assessment is realised in the presence of the driving instructor by a driving test examiner, and the novice driver is entitled to ask for the same examiner to be appointed for the actual driving test. If the basic driving manoeuvres are already performed satisfactorily during the practice test, they must not be demonstrated again as part of the final driving test.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is around 55 minutes, of which at least 35 minutes are assigned to the actual test drive. The driving test examiner sits in the front passenger seat during the driving test; the driving instructor is permitted to be present in the vehicle.

Before the driving test begins, the novice driver must hand a completed and sealed questionnaire to the driving test examiner, by way of which he is requested to assess his own driving competence on a ten-point scale from "poor" (1) to "excellent" (10) in the five categories "Vehicle control", "Safety", "Traffic adaptation", "Social behaviour" and "Environmentally aware driving". Within the framework of technical preparation of the vehicle, he must furthermore demonstrate the proper functioning of the vehicle lights and turn indicators. In addition, questions referring to the engine, fluid levels, tyres or lights, for example, must be answered orally.

During the test drive, two of the following basic driving manoeuvres must be tested: "Turning the vehicle to face the other way", "Parking" and "Braking accurately to a stop". Once the driving test examiner has specified which basic driving manoeuvres is to be demonstrated, the novice driver may himself decide how and where to perform this manoeuvre. In addition, "Driving off uphill" may also be tested.

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, but must also drive independently of detailed route instructions from the driving test examiner over a period of around 15 to 20 minutes ("independent driving"). This test component involves either driving to a generally known local destination, or following a block of three to five route instructions given by the examiner, or use of a navigation system to drive to a specified destina-

tion. In addition, the driving test examiner is permitted to ask so-called "situational questions" during the test drive. In other words, the novice driver may be asked to park the vehicle, and must then explain their perceptions, decisions and actions relating to a previously experienced traffic situation to the driving test examiner.

For assessment of the test performance, the driving test examiner determines whether the novice driver has reliably mastered the basic driving manoeuvres, and judges the candidate's driving behaviour according to observation categories such as vehicle control, the maintaining of a safe distance and interaction with other road users. The test decision is reached at the end of the driving test on the basis of the examiner's overall impression of the test performance.

At the end of the test drive, the test result is communicated during a concluding discussion; subsequently, the written self-assessment deposited by the novice driver at the beginning of the test is compared with the observations made by the driving test examiner and discussed accordingly. Novice drivers are able to download the test report from the Internet. If the test is not passed, a repeat attempt is possible at the earliest after ten weeks. The pass rate for the driving test is 48 per cent.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 18 years and successful completion of secondary school education. Training is not prescribed, but around 98 per cent of all prospective driving instructors make use of optional training offers. Such training is provided by private organisations and comprises 286 hours of theoretical instruction, alongside 14 hours of practical instruction. The concluding professional qualification test consists of a written knowledge test, a driving test and a sample demonstration of practical driving instruction. The test is conducted by state organisations. Driving instructors must attend a total of three days of further training within five years.

Auditing of driving schools

Driving schools are subjected to audits by staterecognised organisations at regular intervals. These audits serve to monitor the pedagogical quality of the practical driving instruction. In addition, average driving test pass rates are published to give an indication of the quality of individual driving schools.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 28 years who have held a driving licence for at least ten years and have obtained a certificate of advanced-level school education. Training with a scope of around one year is prescribed; admission to this training is subject to an entry test. A professional qualification test is similarly prescribed. Driving test examiners must attend two days of further training each year.

Quality assurance measures in test organisations

Quality assurance with regard to the knowledge test involves the evaluation of test item statistics. Newly developed test items are also tested and evaluated. With regard to the driving test, internal quality audits are performed annually by the test organisation ("Centraal Bureau Rijvaardigheidsbewijzen" – "CBR"). Test reports from the driving test are also evaluated.

Further development

The authorities in the Netherlands are considering expansion of the system of novice driver preparation to include opportunities for accompanied driving.

New South Wales

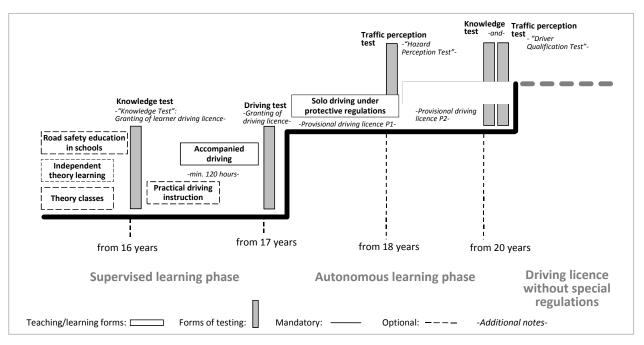


Fig. 28: System of novice driver preparation in the Australian state of New South Wales

Overview

Novice drivers prepare by way of independent theory learning for a knowledge test, the passing of which leads to the issuing of a learner driving licence (at the earliest from the age of 16 years). With this learner driving licence, the holder is able to commence practical driving instruction with a lay trainer or professional driving instructor and to gain practical driving experience by way of accompanied driving. A driving test must be taken after at least 12 months and up to a maximum of 36 months of accompanied driving (at the earliest from the age of 17 years). Passing of this test entitles the novice driver to progress to solo driving under protective regulations during an autonomous learning phase of at least three years in total. During the autonomous learning phase, a traffic perception test ("Hazard Perception Test") is prescribed at the earliest after 12 months and at the latest after 24 months; if passed, this leads to the lifting of certain protective regulations. After a further 24 months of solo driving under protective regulations, a second knowledge test must be taken in combination with a second traffic perception test ("Driver Qualification Test"). If these combined tests are completed successfully (at the earliest from the age of 20 years), a driving licence free of special regulations for novice drivers is granted.

Framework conditions

Minimum age requirements

The minimum age for admission to take the first knowledge test, and thus for the issuing of a learner driving licence which entitles the holder to commence practical driving instruction with a lay trainer or professional driving instructor and to participate in accompanied driving, is 16 years. The earliest age at which the driving test can be taken is 17 years. The first traffic perception test ("Hazard Perception Test") can be taken at the earliest 12 months after the driving test, i.e. from the age of 18 years. A second knowledge test in combination with a second traffic perception test ("Driver Qualification Test") then follows at the earliest 24 months after the first traffic perception test. A driving licence free of special regulations for novice drivers is granted at the earliest after an autonomous learning phase covering a total period of 36 months, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

An eyesight test is prescribed as a prerequisite for the issuing of a learner driving licence and is conducted within the framework of the first knowledge test. If inadequate vision is revealed, a more intensive eyesight test must be performed by a doctor.

Duration and costs

After obtaining a learner driving licence, novice drivers must drive with accompaniment for at least

12 months. On average, however, around 15 months pass before novice drivers take the driving test and commence solo driving. Successful completion of the driving test is followed by an autonomous learning phase lasting at least 36 months. No data were received on the costs incurred to obtain a driving licence.

Curriculum

The basis for the acquisition of traffic-related knowledge is the "Road Users Handbook", which is published by the test organisation and arranges the required content under the following main headings: "Licences", "Road safety", "Safe driving", "General road rules", "Vehicle registration" and "Penalties". The framework conditions and content demands of the driving test are described in a corresponding manual ("A Guide to the Driving Test"). Similar manuals are also available to support preparation for the further tests during the autonomous learning phase ("Hazard Perception Handbook", "Driver Qualification Handbook").

Teaching and learning forms

Theory classes

The attendance at theory classes is not prescribed. Novice drivers acquire traffic-related knowledge within the framework of general school education (see "Road safety education in schools" below) or by way of independent theory learning (see below).

Road safety education in schools

The general school curriculum specifies classes on road safety for children aged 9-10 years and 11-12 years. In addition, state schools are able to offer voluntary courses in the sense of novice driver preparation, where focus is placed primarily on the acquisition of traffic-related knowledge and the promotion of safety-relevant attitudes. It is similarly possible to offer practical driving instruction in the context of general school education. This instruction may only be given by correspondingly qualified teachers or external professional driving instructors.

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. As a basis for successful completion of the first knowledge test, and similarly all subsequent tests, novice drivers are expected to prepare for tests with the aid of printed and electronic learning materials made available by the test organisation. These media serve to facilitate the acquisition of knowledge in overarching subject areas such as "Hazard perception", "Road safety", "Road rules" and "Driving techniques". The test organisation actually points out that it is hardly possible to pass the vari-

ous tests without previously having studied the specified content. The test items used in the knowledge test are not publicly accessible, but similar test items are published as examples to aid preparation.

Practical driving instruction

Practical driving instruction may be taken either with a lay trainer or with a professional driving instructor. Around 80 per cent of novice drivers make use of offers for professional training – as a supplement to lay training and accompanied driving (see below). Practical driving instruction with a professional driving instructor is offered by commercial driving schools and within the framework of general school education. The teaching/learning methods typically used by professional driving instructors include driving on standard and flexible routes in real traffic, and practical demonstrations by the instructor. The training vehicle must be equipped with dual controls.

Practical driving instruction under the supervision of a lay trainer is subject to the same general conditions as accompanied driving (see below).

Accompanied driving

It is believed that all novice drivers make use of the possibility to acquire practical driving experience by way of accompanied driving at the earliest from the age of 16 years. The prerequisite is possession of a learner driving licence, which is issued to novice drivers if they have previously passed a knowledge test (see below) and an eyesight test. At least 120 hours of accompanied driving must be recorded over a period of at least 12 months and up to a maximum of 36 months, of which 20 hours must be night-time driving. The practice accumulated by way of accompanied driving must be documented in a logbook, which is in turn a prerequisite for admission to take the driving test and must be presented when registering for the test.

Different persons are permitted to act as accompanist for one and the same novice driver, provided they are at least 21 years of age and have held a class C⁸ driving licence for at least three years. During accompanied driving, the vehicle used must be marked as a learner vehicle. Novice drivers must observe an absolute zero-alcohol rule, while a maximum permissible blood alcohol content of 0.05 per cent applies for the accompanist. A speed limit of 80 km/h must be observed, and use of a telephone while driving is forbidden under all circumstances. A local exclusion forbids accompanied driving in Centennial Park in Sydney.

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⁸ New South Wales uses the class designation "C" for car driving licences.

Solo driving under protective regulations

After passing the driving test, novice drivers progress to an autonomous learning phase which lasts for at least three years: Initially, a provisional driving licence is granted for a period of at least 12 months and up to a maximum of 18 months ("P1 Licence"). After completion of a traffic perception test ("Hazard Perception Test"), a new provisional licence ("P2 Licence") is issued for a further period of at least 24 months. Over the whole autonomous learning phase of at least three years, novice drivers must observe an absolute zeroalcohol rule and are not permitted to drive particularly powerful vehicles; the vehicle used must furthermore be marked as a novice vehicle. Novice drivers with a "P1 Licence" are subject to stricter protective regulations: They must observe a speed limit of 90 km/h, the use of a mobile telephone is forbidden, even where a hands-free device is available, and trailers may only be towed up to a total weight of 250 kg. In addition, novice drivers under 25 years of age are only permitted to carry one passenger under 25 years when driving between 11 p.m. and 5 a.m.. The protective regulations for novice drivers with a "P2 Licence" are less strict: The permissible speed limit is raised to 100 km/h and a mobile telephone may be used with a hands-free device.

Possible sanctions in case of failure to comply with the protective regulations include driving bans, temporary withdrawal of the driving licence for up to three months, or even complete invalidation of the present driving licence. After a temporary withdrawal, the authorities forbid the carrying of more than one passenger, and the autonomous learning phase is extended by the period of licence withdrawal. Novice drivers are also subject to stricter regulations within the framework of the generally applicable demerit points system: Whereas a full, unrestricted licence is only withdrawn once 12 points have been accumulated, the corresponding threshold is lowered to 7 points for a "P2 Licence" and only 4 points in the case of a "P1 Licence".

Forms of testing

Knowledge tests

Two computer-based knowledge tests must be taken within the overall framework of novice driver preparation:

To pass the first knowledge test at the beginning of the supervised learning phase, at least 41 of the total of 45 test items (multiple-choice questions with three answer options each) must be answered correctly. There is no time limit for completion of the

- test, but the test is already terminated prematurely if the maximum permissible number of incorrect answers is exceeded. Graphics are used to visualise traffic situations.
- The second knowledge test at the end of the autonomous learning phase (as a component of the "Driver Qualification Test") consists of 15 test items (multiple-choice questions with four answer options each). This test is not terminated immediately if the maximum permissible number of incorrect answers is exceeded. Graphics and animated dynamic scenarios are used to visualise traffic situations.

At the end of the tests, the results are displayed on the screen. The candidate receives a written report on the test result and the driving test examiner gives general oral feedback on the total points score and subject areas in which knowledge deficits were revealed. The pass rate for the first knowledge test is 65 per cent. The second knowledge test is taken and assessed together with a traffic perception test as a component of the "Driver Qualification Test", for which the pass rate is 67 per cent.

Traffic perception tests

Two traffic perception tests must be taken during the course of the autonomous learning phase:

- The first traffic perception test ("Hazard Perception Test") is taken at the earliest one year after commencing solo driving. It comprises 15 test items with 30-second real videos. The videos are presented on a touchscreen, and the novice driver is asked to touch the screen to indicate the correct moment at which a certain, previously specified action (e.g. turning at a junction) can be performed safely. The actual test is preceded by two practice questions.
- The second traffic perception test is taken at the end of the autonomous learning phase (within the framework of the "Driver Qualification Test"). It consists of 10 real videos, in which traffic situations are likewise depicted from the driver's perspective. The task for the candidate is similar to that in the first traffic perception test, except that each test item (film clip) may contain more than one situation in which the specified action can be performed.

At the end of the traffic perception test, the result is displayed on the screen. The candidate also receives feedback on the total points score and subject areas in which knowledge deficits were revealed. The pass rate for the first traffic perception test ("Hazard Perception Test") is around 85 per cent. The second traffic perception test is taken and assessed together with a knowledge test as a component of the so-called "Driver Qualification Test", for which the pass rate is 67 per cent.

Driving test

The driving test takes place exclusively in real traffic. It usually lasts up to 45 minutes. No minimum duration is prescribed. Neither the driving instructor/lay trainer nor an accompanist is permitted to be present in the vehicle during the driving test.

The test vehicle must be provided by the candidate. Within the framework of technical preparation of the vehicle, the driving test examiner first checks whether the vehicle is in a safe, roadworthy condition. If this is not the case, the driving test is aborted and deemed failed. Before setting off, the candidate must perform the necessary vehicle adjustments (e.g. setting the seat position, adjusting the safety belt). He must also be able to use all the controls and operating elements of the vehicle safely and confidently.

During the test drive, two of the following three basic driving manoeuvres are selected at random for testing: "Reverse parking parallel or at an angle to the direction of traffic", "Three-point turn" and "Driving off uphill".

The test drive follows a standard route in real traffic. A test route comprises 25 zones which each feature different traffic circumstances and together ensure opportunities to perform a spectrum of driving tasks. The most difficult traffic situations at a particular test location are always incorporated into the test route. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

For the test decision, the driving test examiner assesses the candidate's test performance with regard to "Vehicle control", "Traffic observation", "Speed management", "Road positioning" and "Hazard perception". A total of 19 different categories of driving error are defined as so-called "fail items" and automatically lead to failing of the test, even though the test drive is continued in order to permit a comprehensive assessment of driving competence. In case of particularly dangerous behaviour, the driving test examiner may record an assessment of "immediate fail", with the result that the test is terminated immediately. To pass the driving test, at least 90 per cent of the set test demands must be satisfied.

At the end of the test drive, the test result is communicated during a concluding discussion. This discussion is held in a meeting room and devotes several minutes to an evaluation of the test drive. The novice driver is given primarily general feedback on his test performance, without discussion of specific traffic situations or occurrences during the test. A test report is also handed over. If the test is not passed, a repeat attempt is possible at the earliest after seven days. The pass rate for the driving test is 55 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 21 years and continuous possession of a full, unrestricted driving licence for at least three years, without any intermediate periods of withdrawal or suspension. Candidates must also attend a medical examination and submit a self-report on their health status.

Theoretical and practical training is prescribed and can only be completed at a state-approved training centre. A test must also be taken, and consists of a written theoretical section (extended "Driver Knowledge Test", comprising 90 test items) and a two-hour practical section. Furthermore, a sample demonstration of driving instruction in the vehicle must be given, serving to permit assessment of the candidate's ability to convey theoretical knowledge and practical driving skills. Driving instructors are subject to continuous monitoring and must repeat the qualification tests every three years.

Auditing of driving schools

When a driving school is opened, the training vehicles are subjected to corresponding inspection. Later, periodic audits are performed to monitor the teaching materials, training vehicles and documentation of the training provided. Furthermore, the pedagogical quality of the driver training is assessed by external experts from the traffic authority and the state department for education and training.

Training of driving test examiners

The profession of driving test examiner is open to persons who hold a full, unrestricted driving licence, which can be obtained at the earliest from the age of 20 years.

Theoretical and practical training is prescribed, with each covering a period of around one week. In addition, it is necessary to take a professional qualification test consisting of a written theory test and a driving test.

Quality assurance measures in test organisations

Quality assurance with regard to the knowledge and traffic perception tests involves continuous verification of the compliance with certain quality standards. The quality of the driving test is similarly monitored by way of audits performed periodically or whenever deemed necessary in response to particular circumstances (participation of a supervisor in regular tests). The responsibility for quality assurance tasks rests with internal evaluators of the "Roads And Traffic Authority" (RTA), who work independently of the driving test examiners.

Further development

New South Wales is currently testing a programme under which novice drivers attend a series of group discussions with a trained facilitator and subsequently a practical coaching session during the first months of solo driving.

New Zealand

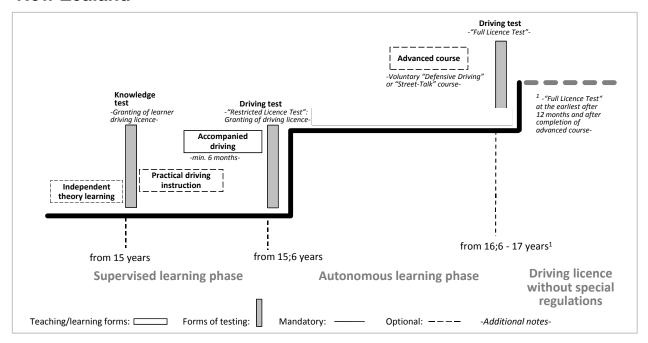


Fig. 29: System of novice driver preparation in New Zealand (model for novice drivers under 25 years)

Overview

Novice drivers prepare by way of independent theory learning for a knowledge test, the passing of which leads to the issuing of a learner driving licence ("Learner Licence"). The learner driving licence entitles the holder to commence practical driving instruction with a lay trainer or professional driving instructor (at the earliest from the age of 15 years). At the earliest after six months, a first driving test ("Restricted Licence Test") can be taken. After passing this test, novice drivers are permitted to drive solo and gain further driving experience under protective regulations (at the earliest from the age of 15 years and 6 months). This autonomous learning phase is normally intended to last 18 months, but may be shortened to 12 months if the novice driver attends a state-approved advanced training course ("Defensive Driving" or "Street Talk")9. Subsequently, a second driving test ("Full Licence Test") must be taken. Passing of the second driving test (at the earliest from the age of 16 years and 6 months) leads to the granting of a driving licence free of special regulations for novice drivers.

Framework conditions

Minimum age requirements

The minimum age for admission to take the knowledge test and for the issuing of a learner driving licence is 15 years. The earliest age at which the first driving test ("Restricted Licence Test") can be taken and thus solo driving under protective regulations can begin is 15 years and 6 months. A driving licence free of special regulations for novice drivers can be issued at the earliest after a further 18 months and after passing a second driving test ("Full Licence Test"), i.e. from the age of 17 years. If the novice driver attends a formal, state-approved training course ("Driver Education"), the second driving test to obtain a full, unrestricted driving licence can already be taken after 12 months, i.e. at the age of 16 years and 6 months.

Proof of fitness to drive

An eyesight test is prescribed as a prerequisite for the issuing of a learner driving licence and is conducted within the framework of the knowledge test.

Duration and costs

No data were received on the average duration of the supervised learning phase; after receiving a learner driving licence, novice drivers must drive for at least six months with accompaniment. The transition to solo driving is followed by an autonomous learning phase lasting at least 18 months. The average costs incurred by a novice driver to

⁹ For novice drivers over 25 years of age, the initial minimum duration of the autonomous learning phase is 6 months; this may be shortened accordingly to 3 months by attending an advanced driver training course.

obtain a driving licence amount to the equivalent of around 230 Euros.

Curriculum

The national road traffic law ("Road Code") serves as a basis for preparation for the knowledge and driving tests. In addition, a framework plan ("Driving Skill Syllabus") is available to support the acquisition of practical driving skills. This syllabus comprises a total of 30 lessons, and its use is recommended in both practical driving instruction with a lay trainer and formal driving school training.

Teaching and learning forms

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning, for which the test organisation makes available printed and electronic learning materials. The test items used in the knowledge test are publicly accessible and may be used for test preparation. The Transport Agency also offers novice drivers a PC-based driving simulation program ("CD-DRIVES") to help train hazard recognition skills.

Practical driving instruction

Practical driving instruction with a professional driving instructor is not prescribed. It is thus possible to acquire driving skills both under the supervision of a lay trainer and with a professional driving instructor. Professional driving instructors must possess a corresponding permit from the Transport Agency; lay trainers must be at least 19 years of age and must have held a valid driving licence for at least two years.

The contents for practical driving instruction are defined in a framework syllabus (see above). In addition, the Transport Agency offers an Internet platform through which novice drivers and lay trainers are able to call up special learning units to support their acquisition of practical driving experience and as preparation for the driving test. A total of 14 topics are presented (teaching films with explanation of the learning objectives), and the novice driver is then intended to practice the corresponding skills in real traffic after viewing the tips and information given on the Internet platform. A recommended minimum scope of practice in real traffic is also specified for each unit.

Accompanied driving

The prerequisite for participation in accompanied driving is a learner driving licence, which is granted to novice drivers if they have previously passed a knowledge test and an eyesight test. The phase of driving practice exclusively under the supervision of an experienced accompanist must cover a pe-

riod of at least six months. Accompanied driving can be documented by way of a logbook.

Different persons are permitted to act as accompanist for one and the same novice driver, provided they are at least 19 years of age and have held a valid driving licence for at least two years. During accompanied driving, the vehicle used must be marked as a learner vehicle. Novice drivers under the age of 20 years must observe an absolute zero-alcohol rule, and further passengers may only be carried on an accompanied drive with the consent of the accompanist.

Solo driving under protective regulations

After passing the first driving test ("Restricted Licence Test"), novice drivers are initially granted a provisional driving licence for a period of 18 months; this autonomous learning phase may be shortened to 12 months by attending a recognised driver training course. During the autonomous learning phase, night-time driving (between 10 p.m. and 5 a.m.) is not permitted, and a lower maximum permissible blood alcohol content of 0.03 per cent applies when driving. Furthermore, passengers may only be carried if an experienced accompanist who has held a full, unrestricted driving licence for at least two years is also present in the vehicle. Sanctions in case of traffic offences include driving bans of up to three months and confiscation of the vehicle.

Advanced training course

Completion of a state-approved advanced training course ("Defensive Driving" or "Street Talk") after the commencement of solo driving is rewarded with shortening of the 18-month autonomous learning phase by six months. The corresponding voluntary course offers can be taken up at the earliest six months after passing the first driving test ("Restricted Licence Test"). The so-called "Defensive Driving" course (with a total scope of nine hours) conveys strategies to identify, assess and avoid hazardous situations. To this end, four theory classes discuss topics such as the accident risk arising from distraction, emotions, alcohol and drugs, or the influence of passengers ("peer pressure"). A further course unit is devoted to a drive in real traffic, during which the novice driver's driving competence is observed and assessed according to demands and criteria comparable to those which apply in the forthcoming second driving test ("Full Licence Test"; see below). Alternatively, novice drivers may choose a so-called "Street Talk" course, which similarly consists of four theory class units and a session of practical driving in real traffic. Alongside strategies for the handling of hazardous situations, this course also provides an insight into the demands to be satisfied in the second driving test.

Forms of testing

Knowledge test

The knowledge test is realised either as a computer-based test or as a "paper-and-pencil" test. To pass, at least 32 of the total of 35 test items (multiple-choice questions, true/false questions) must be answered correctly. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. The test contents cover subject areas such as "Parking", "Emergency situations", "Road signs and markings", "Vehicle positioning", "Behaviour in road traffic" and "Crossroads/junctions". At the end of the test, the candidate receives feedback on the total points score. Feedback on whether a particular test item has been answered correctly is given immediately after entering the answer. No information was received on the pass rate for the knowledge test.

Driving tests

The system of novice driver preparation implemented in New Zealand requires that two driving tests be taken: Passing of the "Restricted Licence Test" founds an entitlement to drive solo under protective regulations, while successful completion of the "Full Licence Test" leads to the granting of a driving licence free of special regulations for novice drivers. Both driving tests take place exclusively in real traffic. An accompanist may take a rear seat in the vehicle during the tests; the driving test examiner sits in the front passenger seat. The test vehicle must be provided by the candidate. Within the framework of technical preparation of the vehicle, the driving test examiner first checks whether the vehicle is in a safe, roadworthy condition. If this is not the case, the driving test is aborted and deemed failed.

The "Restricted Licence Test" lasts around 30 minutes. The test drive follows a standard route in real traffic, with the test locations along this route being characterised by increasing traffic density and situative demands. The first section of the test drive assesses driving tasks such as driving off, straight driving and turning at junctions on roads with a permissible speed limit of 60 km/h and low traffic density. In the second section of the test, more complex tasks or basic driving manoeuvres are tested at the same locations; this includes, for example, reversing (in connection with a three-point turn, reversing into a driveway or

parking parallel to the direction of traffic), turning (at junctions controlled by a stop sign or traffic lights) and the negotiation of a roundabout. The third section of the test moves to roads with a permissible speed limit of 100 km/h and includes straight driving, the use of multiple lanes, driving through bends and merging into the traffic flow. The driving test examiner observes the candidate's behaviour on the basis of specific observation categories, such as "Use of the mirrors", "Signalling", "Braking", "Speed adaptation" or "Vehicle positioning". For assessment of the test performance, the driving test examiner uses a test report to note whether particular criteria were met or not. To pass the driving test, at least 80 per cent of all specified criteria must be met. After the test drive, the test result is communicated during a concluding discussion, in which the novice driver also receives feedback on the driving errors observed and areas in which further practice is recommended.

The total test duration of the "Full Licence Test" is around 60 minutes, of which around 45 minutes are assigned to the actual test drive. This test drive follows a flexible route in real traffic and similarly consists of three sections: The first section involves a variety of simple driving tasks on different types of road with different traffic densities (straight driving, turning left and right at crossroads/junctions). The second section of the test addresses hazard recognition and the appropriate reaction to hazards in residential areas. Besides assessing the candidate's execution of specified driving tasks. the driving test examiner at some point asks the novice driver to stop the vehicle and to report on the potential hazards (e.g. playing children, pedestrians) encountered so far. The third section serves to test hazard recognition in traffic environments with a permissible speed limit of 70 to 100 km/h. While performing the specified driving tasks (e.g. turning to face the other direction, driving through bends), the candidate must here spot and name potential hazards relating to both other roads users and the particular circumstances of the traffic environment (e.g. junctions, bends) in the sense of "commentary driving". For assessment of the test performance, the driving test examiner judges both the execution of the required driving tasks and the degree to which the hazards and situation cues reported by the novice driver coincide with his own observations. At least 80 per cent of the specified criteria must be met in the first section of the test in order to proceed to the remaining two sections. To pass the driving test, at least 80 per cent of the specified criteria must also be met in the second and third test sections.

At the end of the test drive, the test result is communicated during a concluding discussion, in which the novice driver also receives feedback on the driving errors observed.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 19 years and possession of a full, unrestricted car driving licence for at least two years. Candidates must not be restricted by any health impairments, and neither criminal nor traffic-related offences must be on record against their person from the past.

Theoretical and practical training is prescribed and covers, among others, the subject areas "Developing and following through on individual training plans", "Factors affecting people's learning" and "Observing and analysing a person's driving". The regular driving test (see "Full Licence Test" above) must also be renewed if the original test was taken more than five years previously. Furthermore, a sample demonstration of practical driving instruction must be given within the framework of the training.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 19 years who have held a full, unrestricted car driving licence for at least two years.

Theoretical and practical training is prescribed and is completed in a test centre under the supervision of an active driving test examiner. Various theoretical and practical tests must also be taken within the framework of the training once the supervising driving test examiner considers the attained learning status to be adequate.

Further development

New Zealand is raising the minimum age for the issuing of a learner driving licence ("Learner Licence") from 15 years to 16 years; consequently, all further minimum age requirements in connection with driver licensing are also to be increased

by one year. In addition, novice drivers are to be faced with higher test demands in the driving tests.

North Carolina

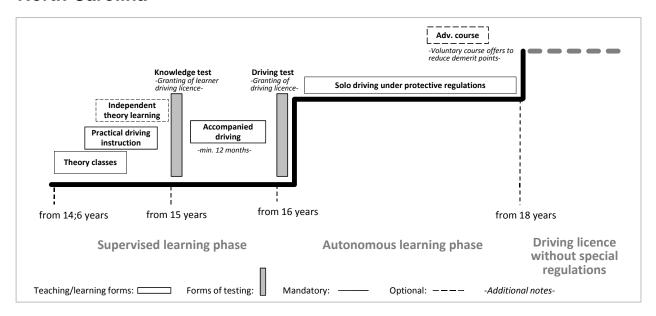


Fig. 30: System of novice driver preparation in the US state of North Carolina (model for novice drivers under 18 years)

Overview

During the supervised learning phase (commencing at the earliest from the age of 14 years and 6 months), it is a mandatory requirement for novice drivers under the age of 18 years 10 to make use of school-based training offers ("Driver Education Classes") comprising theory classes and practical driving instruction. It is subsequently necessary to take a knowledge test (at the earliest from the age of 15 years), the passing of which leads to the granting of a learner driving licence ("Limited Learner Permit"). With this learner driving licence, novice drivers are entitled to gain experience through accompanied driving over a period of at least 12 months. If the following driving test is passed (at the earliest from the age of 16 years), a provisional driving licence ("Limited Provisional License") is issued and the novice driver is permitted to drive solo under protective regulations. A driving licence free of special regulations for novice drivers is granted after an autonomous learning phase of six months or from the age of 18 years.

Framework conditions

Minimum age requirements

The minimum age for attendance at theory classes and the commencement of practical driving instruc-

tion ("Driver Education Classes") is 14 years and 6 months. The knowledge test to obtain a learner driving licence ("Limited Learner Permit") can be taken from the age of 15 years. The earliest age at which the driving test can be taken and thus solo driving under protective regulations can begin (with a "Limited Provisional License") is 16 years. Certain protective regulations (e.g. exclusion of night-time driving, passenger restrictions) are lifted at the earliest after six months, and a driving licence free of special regulations for novice drivers can be issued at the earliest from the age of 18 years.

Proof of fitness to drive

Novice drivers must pass an eyesight test to receive a learner driving licence.

Duration and costs

For novice drivers under 18 years, the supervised learning phase lasts a minimum of 12 months before the driving test can be taken and solo driving under protective regulations may begin. Protective regulations apply for the first six months after the commencement of solo driving or up to the age of 18 years. No data were received on the costs incurred to obtain a driving licence.

Teaching and learning forms

Theory classes

Attendance at theory classes is mandatory for novice drivers under the age of 18 years. At least 30 course units (of 60 minutes each) must be completed. The theory classes are offered in state schools.

¹⁰ No formal training ("Driver Education") is prescribed in advance of the issuing of a learner driving licence for novice drivers over the age of 18 years.

Independent theory learning

Exercises serving as preparation for the knowledge test are made available through the website of the responsible traffic authority ("North Carolina Division of Motor Vehicles"). The basis for the acquisition of knowledge and skills in connection with learning to drive and in preparation for the corresponding tests is the "North Carolina Driver's Handbook" published by the traffic authority. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is prescribed for novice drivers under the age of 18 years. At least six course units must be completed. This instruction is offered in state schools. Practical driving instruction with a lay trainer (or extended practical driving experience in the form of accompanied driving) is possible after completing the formal driving school training and obtaining the corresponding learner driving licence ("Limited Provisional Permit").

Accompanied driving

Novice drivers in possession of the necessary learner driving licence are able to acquire practical driving experience within the framework of accompanied driving from the age of 15 years. The prerequisite is that the novice driver must have previously completed the mandatory theory classes and practical driving instruction ("Driver Education Classes") and must have passed the knowledge test.

A period of at least 12 months of accompanied driving is prescribed before the driving test can be taken. During the first six months, driving is only permitted during the daytime from 5 a.m. to 9 p.m., and the novice driver must not use a mobile phone while driving, even with hands-free device, during the whole accompanied phase. The accompanist must have possessed a valid driving licence (equivalent to European class B) for at least five years. Parents, grandparents or any other persons confirmed as reliable accompanists by the novice driver's parents are permitted to act in this function.

Solo driving under protective regulations

After passing the driving test, novice drivers are granted a provisional driving licence valid for a period of six months or until the holder reaches the age of 18 years. During this period, night-time driving (between 9 p.m. and 5 a.m.) is only permitted if the novice driver is accompanied by a person who is over 25 years of age and himself in possession of a driving licence. If no adult accompanist is present, only one passenger under 21 years is allowed to be in the vehicle (this restriction does not

apply to family members under 21 years). It is furthermore not permitted to use a mobile phone, even with a hands-free device. Within the framework of the generally applicable demerit points system, stricter regulations apply for novice drivers under 18 years also after the first six months. Up to the age of 21 years, an absolute zero-alcohol rule must be observed. In case of alcohol- or drugs-related traffic offences, the driving licence is withdrawn for a period of one year.

Advanced training course

Novice drivers are able to earn reduction of the demerit points on their driving record by attending an advanced training course ("Defensive Driving Course"). Corresponding course offers may also be completed as entirely online courses. In addition to points reduction, lower liability insurance premiums serve as incentives for participation.

Forms of testing

Knowledge test

To pass the knowledge test, at least 20 of the total of 25 test items must be answered correctly. The test items are presented in the form of multiple-choice questions, for which either one, several or none of the answer options may be correct. The test comprises a written section on traffic laws ("Written Test") and a section in which the candidate is required to recognise road signs and their meaning ("Sign Test").

Driving test

No information was obtained on the framework conditions for the driving test. During the course of the test drive, the novice driver must demonstrate various (basic) driving manoeuvres, for example "Approaching intersections, stop signs and traffic signals", "Emergency braking", "Reversing", "Stopping and driving off", "Parking", "Use of gears (also on a downhill gradient)", "Turn signals and use of the horn", "Turning to face the other direction", "Use of lanes", "Overtaking and being overtaken" and "Three-point turn".

Quality assurance

Training of driving instructors

Driving instructors must attend a training course with a scope of 80 hours at a state-approved driving school or university. It is subsequently necessary to pass knowledge and driving tests, and to give sample demonstrations of teaching ability; the required samples consist of two hours of class-based teaching and two hours of practical driving instruction. Further training amounting to at least 68 hours must be attended within four years.

Norway

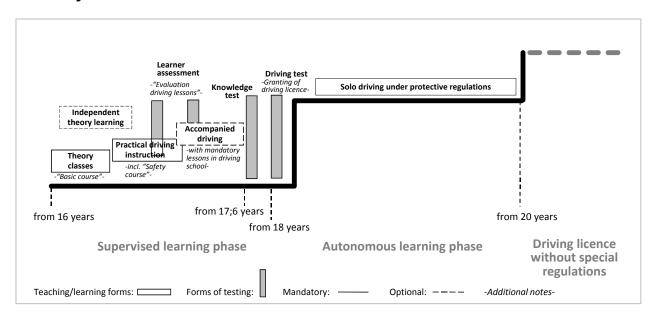


Fig. 31: System of novice driver preparation in Norway

Overview

During the supervised learning phase, it is a mandatory requirement to attend theory classes ("Basic course on traffic knowledge") given by a professional driving instructor (at the earliest from the age of 16 years). After completing these classes, it is possible to commence practical driving instruction with a lay trainer or professional driving instructor and subsequently to gain further practical experience by way of accompanied driving. In addition, driving safety training ("Safety and skid pan course") and certain further course units (theory classes, practical driving instruction) with a professional driving instructor are prescribed for all novice drivers during the supervised learning phase. They are likewise required to attend two learner assessments ("evaluation lessons") with a professional driving instructor. At the end of the training, novice drivers take first a knowledge test and finally a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo under protective regulations during a two-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for admission to the mandatory theory classes ("Basic course on traffic knowledge") and for commencement of the subsequent practical driving instruction is 16 years. The knowledge test can be taken from the age of 17 years

and 6 months, and the driving test from the age of 18 years. A driving licence free of special regulations for novice drivers is granted 24 months after taking the driving test, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Novice drivers must present a self-report with regard to their eyesight and possible physical or mental impairments of their fitness to drive.

Knowledge of first aid

Novice drivers must complete a first aid course with a scope of four hours. This course takes place within the framework of the mandatory theory classes.

Duration and costs

On average, around six months pass before novice drivers commence solo driving. Successful completion of the driving test is followed by a 24-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of between 1,800 and 2,400 Euros.

Curriculum

A curriculum serves to establish mutual references between the contents of theory classes and practical driving instruction. It is based on a training model aligned to the so-called "GDE matrix" and places a focus on the promotion of attitudes relevant in the context of road safety (NORWEGIAN PUBLIC ROADS ADMINISTRATION, 2004b). The curriculum distinguishes four successive stages of

competence acquisition, and overall learning objectives are defined for each of these stages, alongside specifications for the corresponding mandatory course units for formal driving school training. The first stage consists of a "Basic course on traffic knowledge" (17 theory classes of 45 minutes each); completion of this basic course is a prerequisite for the commencement of practical driving instruction under the supervision of a lay trainer or professional driving instructor. At the second stage, novice drivers are expected to acquire "Basic competences with regard to the vehicle and driving". Before the transition to the third stage, they must attend a learner assessment ("evaluation driving lesson") with a professional driving instructor. The third stage comprises "Training in road traffic"; this includes also attendance at a driving safety course ("Safety and skid pan course"; 2 theory class units, 2 practical course units). After a further learner assessment ("evaluation driving lesson") with a professional driving instructor, the novice driver proceeds to "Final training" in preparation for the driving test. This fourth stage of driver training requires the completion of at least 8 course units of practical driving instruction and 5 theory class units with a professional driving instructor.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 24 course units (of 45 minutes each) must be completed; these course units are structured into training blocks and assigned to the different stages of the training curriculum (see above). The first stage (see "Curriculum") comprises 17 course units, of which 10 course units address the content areas "Basic rules of road traffic", "Protagonists in the road traffic system" and "Realisation of professional or lay driver training"; alongside, four course units are reserved for instruction in first aid, and three course units are devoted to "Night-time driving" (including at least two sessions of practical demonstration). The third stage of training also includes two theory class units (alongside two units of practical driving instruction) within the framework of the prescribed driving safety course. A further five theory classes are prescribed at the fourth stage, where they focus on the attitudes and personality traits of novice drivers.

Theory classes are offered by commercial driving schools and given by a professional driving instructor. The test questions of the knowledge test are not a subject of the mandatory theory classes. Novice drivers have the opportunity to acquire the

corresponding knowledge by attending further, optional theory classes or through independent theory learning. The typically used teaching/learning methods include lecture presentations, class discussions and demonstrations by the instructor. Text books, real videos, test sheets and models of traffic and road infrastructures are the teaching/learning media used. In addition, test items similar to those used in the knowledge test are completed.

Road safety education in schools

In some schools, it is possible to commence preparation for driving licences of classes B and M within the framework of general school education.

Independent theory learning

Printed and electronic media are offered by both commercial publishers and test organisations to support independent theory learning. The contents of the majority of the available teaching/learning media are aligned to the subject areas defined in the curriculum. The test items used in the knowledge test are not publicly accessible.

Practical driving instruction

Novice drivers are required to complete a certain scope of practical driving instruction in a commercial driving school. The third stage of the curriculum, for example, requires completion of a driving safety course with a professional driving instructor. This course includes two practical course units on a practice ground and in real traffic (alongside two class-based theory classes). Within the framework of the fourth stage of the curriculum, at least eight course units (of 45 minutes each) must be completed with a professional driving instructor.

The teaching/learning methods typically used by professional driving instructors include driving on a practice ground, driving on flexible routes in real traffic, demonstrations by the instructor, "independent driving" and self-assessments of driving skills by the novice driver himself. The training vehicle must be equipped with dual controls and additional outside and inside rear-view mirrors.

Around 70 to 82 per cent of novice drivers make use of the opportunity to learn to drive under the supervision of a lay trainer or accompanist. A lay trainer must be at least 25 years old, must have held a class B driving licence for at least five years, and is expected to have driven regularly throughout this period. Within the framework of lay driver training, the vehicle used must be marked as a learner vehicle and equipped with an additional wing mirror for the lay trainer; furthermore, the hand brake must be within reach of the lay trainer. Driving abroad is forbidden. Both the novice driver

and the lay trainer/accompanist must observe a lower maximum permissible blood alcohol content of 0.02 per cent when driving.

Accompanied driving

The development of practical driving experience over a longer period is promoted by the fact that practical driving instruction under the supervision of a lay person is possible from the age of 16 years, but the driving test cannot be taken until the age of 18 years at the earliest. An average of 2,300 kilometres of driving is done over this period (TRONSMOEN, 2011). The prerequisites to be met by the novice driver and accompanist are the same for accompanied driving as for lay training.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. Within the framework of the generally applicable demerit points system, the sanctions for traffic offences which result in a driving ban are obligations to repeat the knowledge and driving tests and extension of the probationary period by a further two years.

Forms of testing

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 38 of the total of 45 test items (true/false questions, multiple-choice questions) must be answered correctly. The candidate is allowed 90 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. At the end of the test, the candidate receives a written report on the test result, with feedback on the test items which were not answered correctly and subject areas in which knowledge deficits were revealed. The pass rate for the knowledge test is 52 per cent.

Driving test

The driving test takes place exclusively in real traffic. The total test duration is around 65 to 75 minutes, of which around 60 minutes are assigned to the actual test drive. The driving instructor is permitted to be present in the vehicle during the driving test. The driving test examiner sits in the front passenger seat.

Within the framework of technical preparation of the vehicle, it is observed whether the novice driver sets the seat position, head-rests, mirrors and safety belt correctly, and whether he is able to check the adequate functioning of the brakes after starting the engine. During the test drive, the three basic driving manoeuvres "Reversing", "Turning to face the other direction" and "Parking" are tested. The test drive follows a standardised route in real traffic. During the test drive, the driving test examiner gives the novice driver partly specific driving instructions and partly more complex route specifications ("independent driving").

The test performance is assessed on the basis of six observation categories, namely "Traffic observation", "Signalling", "Positioning on the road and safety margins to other road users", "Speed adaptation", "Adaptation to the traffic flow" and "Vehicle control". Driving errors are classified according to a three-level scale: "Minor errors" (non-serious deviation from the road traffic regulations), "Fundamental errors" (driving errors with substantial potential for endangerment) and "Decisive errors" (situations in which the driving test examiner must intervene physically or verbally to avert a danger). In addition, exceptionally good driving behaviour may be rewarded with a plus point. The test is deemed failed if several related "minor errors" or more than one to three "substantial errors" are recorded. A "decisive error" always leads to termination of the driving test and a corresponding negative result. The test decision takes into account the driving errors observed, but is in the end based essentially on the candidate's overall driving performance.

Immediately after the test drive, the test result is communicated during a concluding discussion, which also addresses the driving errors observed and the positive aspects of the candidate's test performance. The novice driver receives a test report irrespectively of whether the test was passed or not. If the test is unsuccessful, a repeat attempt is possible at the earliest after two weeks. The pass rate for the driving test is 80 per cent.

Learner assessments

It is a mandatory requirement to attend two 45-minute learner assessments ("evaluation driving lessons") with a driving instructor. These assessments consist of a drive in real traffic and an interview with the novice driver; the objective is to verify attainment of the learning objectives anchored in the second and third stages of the training curriculum.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 21 years, possession of a driving licence for at least three years, and the successful completion of advanced-level school education (constituting the entitlement to study at a university).

Driving instructors must complete mandatory professional qualification training. This training comprises theoretical and practical components at a university with a total scope of 3,360 hours spread over a period of around two years. Tests are prescribed within the framework of this university study and consist of a written theoretical test and a driving test. In addition, the candidate must give a sample demonstration of practical driving instruction. Further training is not prescribed for driving instructors.

Auditing of driving schools

Driving schools are subjected to periodic audits which serve to monitor the standard of classrooms, teaching materials and training vehicles, as well as the compliance with documentation requirements and the pedagogical quality of the practical driving instruction. The audits are performed by statecertified organisations.

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 23 years who have successfully completed the university studies to become a driving instructor and have held a driving licence for at least three years; they are furthermore required to have gained working experience as a driving instructor or engineer.

Mandatory training is provided by the test organisation and lasts between four and five months. This training comprises theoretical and practical components in a local test centre, and a centrally organised three-week course of the test organisation.

Quality assurance measures in test organisations

Quality assurance measures relating to the knowledge test include evaluations of the test items used on the basis of test statistics, with a focus being placed on frequent incorrect answers, ambiguously formulated instructions and particularly high proportions of correct answers.

Poland

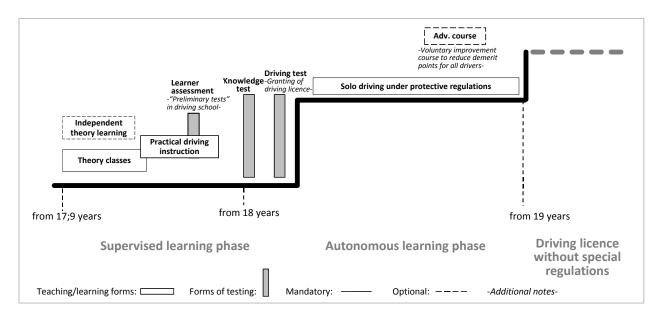


Fig. 32: System of novice driver preparation in Poland

Overview

During the supervised learning phase, it is a mandatory requirement to attend theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 17 years and 9 months). Novice drivers must pass learner assessments in the driving school before being allowed to take a knowledge test and finally a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo under protective regulations during a one-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for admission to theory classes and for the commencement of practical driving instruction in a driving school is 17 years and 9 months. The knowledge and driving tests may be taken from the age of 18 years. A driving licence free of special regulations is granted 12 months after taking the driving test, i.e. at the earliest from the age of 19 years.

Proof of fitness to drive

Driving licence applicants are required to undergo a medical examination (eyesight test, hearing test) and receive a corresponding medical certificate as proof of their fitness to drive.

Duration and costs

No data were received on the average duration of the supervised learning phase. Protective regulations apply during the first 12 months after obtaining a driving licence. They are lifted at the earliest from the age of 17 years. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 400 Euros.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. At least 30 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

Independent theory learning

The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 30 course units (of 45 minutes each) must be completed. Practical driving instruction is offered exclusively by commercial driving schools.

Solo driving under protective regulations

Within the framework of the generally applicable demerit points system, novice drivers are subject to stricter regulations for a period of one year after passing the driving test. A novice driver must surrender his driving licence after accumulating 21 points, whereas a threshold of 24 points applies for all other drivers. If the driving licence is withdrawn,

a novice driver must repeat driving school training and the corresponding tests, whereas other drivers must only repeat the licence tests. It is possible to earn the cancellation of six demerit points by attending an advanced training course (improvement course).

Advanced training course

After the commencement of solo driving, any traffic offences committed are documented in a points system. All drivers can attend an improvement course to earn a reduction of the number of points on their record.

Forms of testing

Learner assessment

Within the framework of mandatory driving school training, all novice drivers must attend an internal "preliminary test" in the driving school before being allowed to take the driving licence tests. This learner assessment consists of a full simulation of the knowledge and driving tests, and is subject to the same demands and evaluation criteria as the actual tests. The preliminary test is conducted by a second driving instructor. It is not possible to attend the learner assessment in the driving school until the prescribed scope of theory classes and practical driving instruction has been completed. Determination of an adequate learning status is a prerequisite for admission to the knowledge and driving tests. If the preliminary test is not passed, the novice driver and driving instructor together reach a decision of further training needs.

Knowledge test

The knowledge test is realised as a computer-based test. To pass, at least 16 of the total of 18 test items (multiple-choice questions with one, two or three applicable answer options) must be answered correctly. The candidate is allowed 25 minutes to complete the test. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

The test contents cover the subject areas "Road traffic regulations", "Road signs", "Behaviour at junctions and crossroads"; "Vehicle equipment and control actions" and "First aid".

At the end of the test, the candidate receives feedback on the number of points attained. If the test is failed three times, a further ten hours of theory classes must be attended before a new attempt. The pass rate for the knowledge test is 77 per cent.

Driving test

The driving test takes place on a practice ground and in real traffic. The duration of the test drive is 40 minutes. The driving instructor is permitted to be present in the vehicle during the driving test. The driving test examiner sits in the front passenger seat.

Within the framework of technical preparation of the vehicle, the novice driver is asked to demonstrate or explain a vehicle check. This could mean, for example, checking fluid levels (oil, coolant, brake fluid), the vehicle lights (brake lights, headlights, rear lights) or the horn. In addition, the vehicle mirrors and head-rests must be adjusted correctly.

Before the test drive, various basic driving manoeuvres are tested on a practice ground (this first section of the test is conducted as a group test, i.e. several candidates perform the required basic driving manoeuvres immediately after each other): "Driving in a straight line up to a stop mark and then reversing over the same distance", "Driving off uphill", "Stopping and driving off", "Parking in a marked parking space by way of three different manoeuvres", "Emergency braking", "Braking accurately to a stop", "Turning to face the other direction". Successful completion of the first section of the test is a prerequisite for progress to the test drive in real traffic. The test drive follows a flexible route. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

A test report is only handed over if the driving test is not passed. A repeat attempt is possible at the earliest after one week. If the test is failed three times, the novice driver must attend five further units of practical driving instruction with a professional driving instructor before a new attempt. The pass rate for the driving test is 35 per cent.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 21 years, advanced-level school education and possession of a driving licence for at least three years. A medical certificate of fitness to work as a driving instructor must be presented, and the candidate must furthermore have no serious traffic offences on record.

Driving instructors must complete professional qualification training. This training comprises theoretical and practical components with a total scope of around 190 hours spread over a period of around four months. An aptitude test must be

passed before commencing qualification training. The concluding test comprises written and oral sections, as well as a driving test and sample demonstrations of theoretical and practical instruction.

Training of driving test examiners

The profession of driving test examiner is open to persons who have successfully completed a degree course and have possessed a driving licence for at least six years. Candidates must complete professional qualification training with a total scope of 152 hours of theoretical and practical instruction, and must then pass a concluding test.

Slovakia

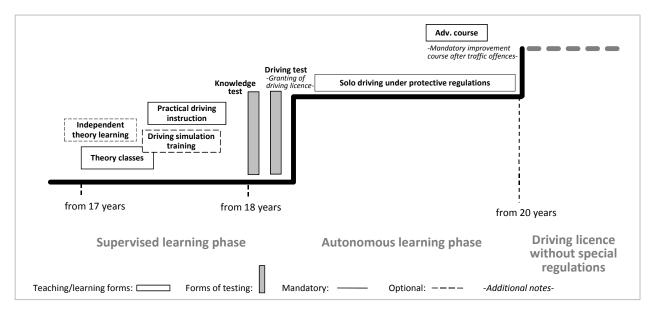


Fig. 33: System of novice driver preparation in Slovakia

Overview

During the supervised learning phase, novice drivers attend mandatory theory classes and practical driving instruction in a commercial driving school (at the earliest from the age of 17 years). It is then necessary to take a knowledge test and a driving test (at the earliest from the age of 18 years). Passing of the driving test founds an entitlement to drive solo under protective regulations during a two-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for admission to the mandatory theory classes and for the commencement of mandatory practical driving instruction is 17 years. The knowledge and driving tests may be taken from the age of 18 years, which is thus also the minimum age for the transition to solo driving. A driving licence free of special regulations for novice drivers is granted 24 months after taking the driving test, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Novice drivers must pass eyesight and hearing tests conducted by a doctor as proof of their medical fitness to drive. A corresponding certificate must be presented when enrolling at a driving school.

Duration and costs

No data were received on the average duration of the supervised learning phase. Protective regulations apply during the first 24 months after obtaining a driving licence. The average costs incurred by a novice driver to obtain a driving licence lie between 400 and 800 Euros.

Curriculum

The content to be covered by the theory classes and practical driving instruction are anchored in a curriculum, alongside specification of the number of course units intended to be devoted to the individual subject areas. The following subject areas are prescribed for the theory classes: "Theory of driving" (3 course units), "Principles of safe driving" (6 course units), "Road traffic" (20 course units) "Vehicle construction and maintenance" (3 course units), plus concluding revision of the overall content (3 course units). Practical driving instruction is divided into three consecutive training phases: (1) "Learning and mastering of basic skills", (2) "Practising of basic skills in respect of compliance with the rules and regulations of road traffic in environments with low traffic density", and (3) "Driver training in complex road traffic situations". In addition, the novice driver should receive practical instruction on the basics of vehicle maintenance and care.

Teaching and learning forms

Theory classes

It is a mandatory requirement to attend theory classes. A total of 35 course units (of 45 minutes each) must be completed. Theory classes are offered by commercial driving schools and given by a professional driving instructor.

The typically used teaching/learning methods include lecture presentations and the completion of test sheets. Text books, slides, real videos, test sheets and technical teaching models are the teaching/learning media used.

Independent theory learning

Printed and electronic media are offered by commercial publishers to support independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation.

Driving simulation training

There is no requirement to attend driving simulation training, but up to five units of the mandatory practical driving instruction may be completed on a driving simulator on a voluntary basis. Around 30 per cent of novice drivers make use of this opportunity.

Driving simulation training is offered by commercial driving schools, and is usually arranged before the commencement of practical driving instruction in real traffic. The training is realised as a combination of individual and group instruction. The driving simulators used generally consist of a steering wheel, a gear stick and a motion system. Simulation training serves to convey skills relating to vehicle operation, the performance of specific driving manoeuvres, compliance with traffic signs and regulations, and the mastering of risk situations.

Practical driving instruction

Practical driving instruction with a professional driving instructor is mandatory. At least 41 course units (of 45 minutes each) must be completed. Practical driving instruction is offered exclusively by commercial driving schools.

The typically used teaching/learning methods include driving on standard routes in real traffic and "commentary driving". Practical driving instruction is realised as individual instruction.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, any traffic offences are more likely to be sanctioned with a driving ban or withdrawal of the driving licence. The novice driver may be required to either repeat

the driving test or else attend improvement courses in order to regain a withdrawn driving licence.

Advanced training course

An obligation to attend an advanced training course may be imposed in case of traffic offences.

Forms of testing

Knowledge test

The knowledge test is realised as a "paper-and-pencil" test. A total of 27 differently weighted test items (multiple-choice questions) must be answered. To pass the test, it is necessary to score at least 50 of the maximum possible 55 points. The candidate is allowed 20 minutes to complete the test. The test item instructions are in part illustrated with graphics, with traffic situations being depicted from the driver's perspective.

At the end of the test, the novice driver receives verbal feedback on the total score achieved. The pass rate for the knowledge test is 80 per cent.

Driving test

The driving test takes place on a practice ground and in real traffic. The total test duration is at least 20 minutes. The driving instructor must be present in the vehicle during the driving test. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, it is observed whether the novice driver is able to adjust the head-rests, his seat position and the vehicle mirrors correctly before setting off; in addition, he must check the correct functioning and fitting of the safety belts and that the doors are properly closed. Further vehicle checks which must be demonstrated include, for example, the condition of the tyres, brakes, steering, lights and fluid levels.

During the test drive, the following basic driving manoeuvres may be tested: "Parking (obliquely or parallel to the direction of traffic)", "Turning the vehicle to face the other direction", "Braking accurately to a stop" and "Driving off uphill".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is mainly given concrete driving instructions by the driving test examiner, though less detailed route specifications are also permissible ("independent driving"). The driving test examiner reaches his test decision on the basis of his overall impression of the candidate's test performance.

A test report is completed during the test drive, but is not handed over to the novice driver. The pass rate for the driving test is 80 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to a minimum age requirement of 25 years, possession of a class B driving licence for at least three years, and the successful completion of higher school education. Candidates must also present a certificate of psychological fitness which was issued no more than three months previously. Furthermore, their personal record must contain no criminal offences and no serious traffic offences within the past three years.

Driving instructors must complete professional qualification training. This training comprises theoretical and practical instruction at a state-recognised training centre, with a total scope of 230 hours spread over a period of three to six months. A professional qualification test is similarly prescribed; this test comprises written and oral theoretical sections, as well as a driving test and sample demonstrations of theoretical and practical instruction. The driving instructor licence is issued for a period of five years, but can be renewed by attending 40 hours of further training and passing the corresponding test.

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection by the responsible licensing authority. Later, follow-up audits are performed to monitor the standard of the classrooms, teaching materials and training vehicles, and to verify the compliance with documentation requirements (e.g. documentation of the driver training provided).

Training of driving test examiners

The profession of driving test examiner is open to persons from the age of 24 years who have held a driving licence for at least three years.

The prospective driving test examiners are at the same time police officers. There is no specific programme of driving test examiner training, but candidates must nevertheless pass a theoretical test. The entitlement to conduct driving licence tests must be renewed every five years.

Quality assurance measures in test organisations

The knowledge and driving tests are conducted by police officers. The test items for the knowledge test are provided jointly by the Ministry of the Interior and the Ministry of Transport. The realisation of knowledge and driving tests is evaluated at irregular intervals by correspondingly empowered police officers.

Sweden

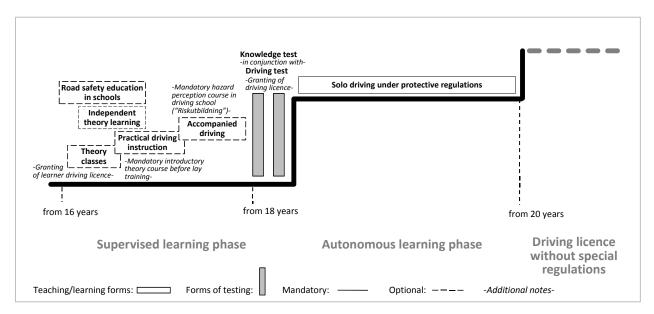


Fig. 34: System of novice driver preparation in Sweden

Overview

At the beginning of the supervised learning phase, it is first necessary to apply for a learner driving licence. With this licence, novice drivers are permitted to take practical driving instruction under the supervision of a lay trainer or professional driving instructor (at the earliest from the age of 16 years), and to make use of accompanied driving to gain practical driving experience over an extended period. The mandatory prerequisite for the option of lay training is previous completion of an introductory theory course in a driving school. In addition, all novice drivers must attend a special course on hazard avoidance ("Riskutbildning") before taking the driving test and commencing solo driving. It is possible to prepare for the required knowledge test either by way of independent theory learning or by attending optional theory classes. The knowledge test and the subsequent driving test are taken on the same day (or at least within a maximum period of two weeks). Passing of the driving test founds an entitlement to drive solo under protective regulations (at the earliest from the age of 18 years) during a two-year autonomous learning phase.

Framework conditions

Minimum age requirements

The minimum age for the issuing of a learner driving licence and the commencement of practical driving instruction is 16 years. The knowledge and driving tests can be taken from the age of 18 years. A driving licence free of special regulations

for novice drivers is granted 24 months after taking the driving test, i.e. at the earliest from the age of 20 years.

Proof of fitness to drive

Novice drivers must attend a medical examination, furnish proof of adequate vision and present a self-report on their health status.

Duration and costs

The supervised learning phase covers a period of between three and 24 months. The transition to solo driving is followed by a 24-month autonomous learning phase. The average costs incurred by a novice driver to obtain a driving licence amount to the equivalent of around 1,350 Euros.

Curriculum

The objectives for novice driver preparation are anchored in a national curriculum. This curriculum is binding for all novice drivers, irrespectively of whether they attend a commercial driving school or learn and practice under the supervision of a lay person. The intention is to define common learning objectives and to guarantee comparable training throughout the country; nevertheless, the general formulation of the objectives should at the same time enable the training to be adapted to individual needs of the novice driver. The training curriculum embraces both theoretical and practical content and is structured into four modules: (1) "Manoeuvring, vehicles and the environment", (2) "Driving in different traffic environments", (3) "Driving under special conditions" and (4) "Personal circumstances and goals in life". Each module is supplemented and expanded by the associated competence fields "Theory and skills" (with a focus on the theoretical knowledge and practical skills necessary to drive a vehicle) and "Self-assessment" (with a focus on the individual circumstances of the driver). For each module, learning objectives are described to indicate the minimum level to be achieved to obtain a driving licence.

Teaching and learning forms

Theory classes

Commercial driving schools offer optional theory classes. Around 90 per cent of novice drivers attend at least one theory class; on average around 11 course units are attended. In addition, classes may be offered within the framework of general school education.

The typically used teaching/learning methods include lecture presentations, written and oral progress assessment, class discussions, demonstrations by the instructor, work in small groups, the integration of external persons into the classes and the completion of test sheets and homework. Text books, slides, real videos, virtual driving scenarios, online training programs and test sheets are the teaching/learning media used.

Attendance at a three-hour introductory theory course with a professional driving instructor is only mandatory for those novice drivers who choose the option of lay training. Three further theoretical course units are prescribed for all novice drivers within the framework of the mandatory hazard avoidance course ("Riskutbildning"; see "Practical driving instruction" below).

Road safety education in schools

Some secondary schools offer classes relating to road safety and driver training. The decision as to whether such offers for novice driver preparation are included in the school curriculum is left to the individual discretion of schools.

Independent theory learning

Novice drivers prepare for the knowledge test either within the framework of theory classes or by way of independent theory learning. Commercial publishers support novice drivers in their learning with text books/manuals aligned to the content specifications of the curriculum (see above). Computer-based and online training programs are also offered by commercial publishers. The test items used in the knowledge test are not publicly accessible, but similar test items are available to aid preparation for the knowledge test.

Practical driving instruction

Practical driving instruction may be taken either with a lay trainer or with a professional driving instructor. Novice drivers are able to choose freely between professional and private instruction; the only prerequisite for the option of lay training is attendance at a three-hour introductory theory course with a professional driving instructor. Approximately 80 per cent of novice drivers combine both forms of training. Only around 10 per cent train exclusively under the supervision of a professional driving instructor.

The teaching/learning methods typically used by professional driving instructors include driving on a practice ground, driving on standard and flexible routes in real traffic, "commentary driving", practical demonstrations by the instructor, "independent driving" and self-assessments of driving skills by the novice driver himself. Practical driving instruction is usually realised as individual instruction, but on rare occasions also as a combination of individual and group instruction.

The vehicle used for practical driving instruction with a professional driving instructor must be marked as a learner vehicle by way of a red plate or sticker with the text "ÖVNINGSKÖR" ("driving practice"). A corresponding plate or sticker in green is prescribed during any practice under the supervision of a lay person.

Within the supervised learning phase, all novice drivers must complete a three-hour course on hazard avoidance ("Riskutbildning") with a professional driving instructor. This course should usually be attended towards the end of practical driving instruction or accompanied driving, i.e. shortly before taking the knowledge and driving tests. The typically used teaching/learning methods include group discussions, feedback drives on a practice ground, driving under difficult conditions (e.g. on slippery roads) and practical demonstrations by the instructor. The content conveyed by the course covers topics such as the recognition of hazardous situations, the significance of driver motives and attitudes, the influence of passengers, typical hazardous situations encountered by novice drivers, emergency braking, and the functions of driver assistance systems.

Accompanied driving

Around 90 per cent of novice drivers make use of the opportunity to drive under the supervision of an experienced accompanist from the age of 16 years. The prerequisite is that the novice driver and his accompanist have together previously completed a mandatory three-hour introductory theory course with a professional driving instructor.

The accompanist must have held a class B driving licence continuously for at least five years and must be at least 24 years old. During accompanied driving, the vehicle used must be marked as a learner vehicle by way of a green plate or sticker with the text "ÖVNINGSKÖR" ("driving practice"); driving abroad is forbidden.

Solo driving under protective regulations

After passing the driving test, novice drivers are initially granted a provisional driving licence for a period of two years. During this period, they must observe a lower maximum permissible blood alcohol content of 0.02 per cent when driving. If the driving licence is withdrawn due to traffic offences, it is necessary to repeat the knowledge and driving tests.

Forms of testing

Knowledge test

The knowledge test is realised as a computerbased test. To pass, at least 52 of the total of 65 test items must be answered correctly. The candidate is allowed 50 minutes to complete the test. Each test also incorporates five "future" test items for purposes of advance evaluation; these test items are not identified as being under trial, and are thus answered by the novice driver in the normal manner, but they are not taken into account in the assessment of test performance. The various test items are presented in the form of true/false questions, multiple-choice questions, sorting questions, cue identification tasks and situation comparisons, though all formats specify answer options in the sense of multiple-choice questions, and only one of these answer options is applicable in each case. The test item instructions are in part illustrated with graphics or photos, with traffic situations being depicted from either the driver's or a bird's-eye perspective. The test contents cover the subject areas "Knowledge of the vehicle and its manoeuvring", "Environment", "Road safety", "Traffic rules" and "Personal prerequisites".

The test result appears on the screen at the end of the test, and the test items which were answered incorrectly are also displayed for a few seconds each, albeit without identifying the correct answer options. After the test, the candidate also receives a written report with indication of the total points score and feedback on the subject areas in which knowledge deficits were revealed. The pass rate for the knowledge test is 72 per cent.

Driving test

The driving test takes place in real traffic. The total test duration is around 45 minutes, of which at least 25 minutes are assigned to the actual test

drive. The driving test examiner sits in the front passenger seat during the driving test; the driving instructor or lay trainer is permitted to be present in the vehicle.

Before the driving test begins, the driving test examiner explains the competence categories according to which the test performance is assessed. Within the framework of technical preparation of the vehicle, the candidate must perform a vehicle check, for which the driving test examiner selects one of the following topics: "Lights, turn indicators, reflectors and signals", "Windscreen wipers", "Brakes", "Tyres and wheel rims", "Oil level", "Hazard warning features".

During the test drive, two of the basic driving manoeuvres "Reversing", "Turning to face the other direction", "Parking", "Driving off uphill" and "Braking within a short distance" must be tested; one of the two manoeuvres is always "Reversing".

The test drive follows a flexible route in real traffic. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner, but must also drive independently to a specified destination ("independent driving"). In addition, the driving test examiner asks oral questions relating to particular driving situations.

By way of the driving test, the novice driver is given the opportunity to demonstrate adequate competence to drive a motor vehicle safely in different traffic situations and in different conditions. For the assessment of test performance, the candidate's behaviour is judged on the basis of the following competence categories: "Speed adaptation", "Vehicle control", "Vehicle positioning", "Traffic behaviour", "Attentiveness" and "Environmentally aware driving". The test decision reflects the driving test examiner's overall impression of the test performance. The test is failed, for example, in case of repeated errors or driving errors which demand the intervention of the driving test examiner.

Directly after the test drive, the test result is communicated during a concluding discussion, and feedback is given on the test performance. In addition, the novice driver receives a test report, irrespectively of whether the test was passed or not. The knowledge and driving tests are considered "mutually tied" tests: If one of the two tests is not passed, it must be repeated within two months. The pass rate for the driving test is 61 per cent.

Quality assurance

Training of driving instructors

The profession of driving instructor is subject to a minimum age requirement of 21 years, the successful completion of higher school education and possession of a class B driving licence for at least three years. Candidates must also complete professional qualification training. This training is spread over a period of around 18 months and comprises theoretical and practical training components with a total scope of around 2,520 hours. Tests are integrated into the training and conducted by a state authority ("Swedish Transport Agency").

Auditing of driving schools

When a driving school is opened, the classrooms, teaching materials and training vehicles are subjected to corresponding inspection, and the professional qualifications of the driving instructors are checked. Later, further audits are performed periodically or whenever deemed necessary in response to particular circumstances; these audits serve to monitor the standard of the training vehicles, the compliance with documentation requirements, the pedagogical quality of the theory classes and practical driving instruction provided, and the qualifications and competence of the driving instructors.

Training of driving test examiners

The profession of driving test examiner is open to persons who have completed higher school education and have held a driving licence for at least three years. The prescribed professional training is spread over a period of around one year. Before commencing training, candidates must demonstrate adequate practical driving ability by way of an entry test. The training comprises theoretical components with a scope of around 12 weeks and practical components with a scope of around 45 weeks. Mandatory theoretical tests are integrated into the training, and actual tests with driving licence applicants must be conducted under supervision. Driving test examiners must attend at least four days of further training within a period of three

years in order to extend the validity of their licence to conduct tests.

Quality assurance measures in test organisations

To evaluate the quality of new test items for the knowledge test, they are tested within the framework of regular knowledge tests; the items concerned are not identified as trial items, however, and are also not taken into account in the assessment of the candidate's test performance. Statistical analyses are performed on both current test items and the test items under trial (e.g. with regard to their difficulty and power of discrimination) and judgements are obtained from experts. The test items are replaced at regular intervals so as to avoid undue familiarity among the test candidates. Quality assurance for the driving test involves the supervision of test realisation and evaluations of test statistics.

Further development

There are discussions in progress on whether to permit also private organisations to conduct knowledge and driving tests.

Victoria

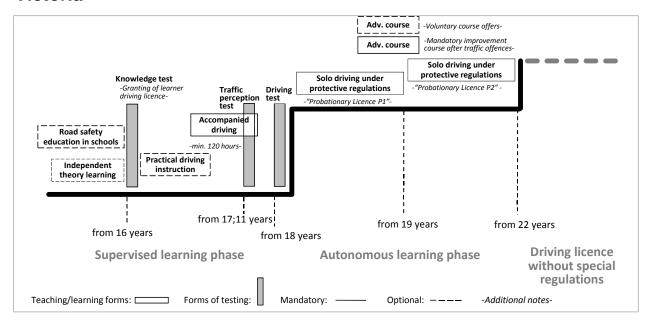


Fig. 35: System of novice driver preparation in the Australian state of Victoria (model for novice drivers under 21 years)

Overview

Novice drivers usually prepare by way of independent theory learning for a knowledge test ("Learner Permit Test"), the passing of which leads to the issuing of a learner driving licence (at the earliest from the age of 16 years). The learner driving licence entitles the holder to commence practical driving instruction with a lay trainer or professional driving instructor and to participate in accompanied driving; at least 120 hours of driving must be recorded over a period of at least 12 months. After passing a traffic perception test (at the earliest from the age of 17 years and 11 months) and a driving test (at the earliest from the age of 18 years), novice drivers are granted a provisional driving licence ("P1 Probationary Licence"), which permits solo driving under protective regulations. After an autonomous learning phase of at least 12 months, this licence can be exchanged for a second provisional driving licence with extended rights ("P2 Probationary Licence"), provided the novice driver has abided with all special regulations associated with the initial provisional licence. A driving licence free of special regulations for novice drivers is finally granted after a further 36 months of solo driving under protective regulations.

Framework conditions

Minimum age requirements

The minimum age for admission to take the knowledge test ("Learner Permit Test"), for the issuing of

a learner driving licence, and for commencement of practical driving instruction and accompanied driving is 16 years. The traffic perception test can be taken at the earliest from the age of 17 years and 11 months, and the driving test from the age of 18 years. A driving licence free of special regulations for novice drivers is granted at the earliest after an autonomous learning phase covering a total period of 48 months, i.e. at the earliest from the age of 22 years.¹¹

Proof of fitness to drive

Novice drivers must take an eyesight test immediately before the knowledge test. They are furthermore obliged to report any existing health impairments. Where relevant impairments exist, a medical report must be obtained to clarify the underlying condition.

Duration and costs

After obtaining a learner driving licence, novice drivers must drive with accompaniment for at least 12 months. On average, 12 to 18 months pass before the commencement of solo driving. Successful completion of the driving test is followed by an autonomous learning phase lasting at least 48 months (or 36 months for novice drivers over the age of 21 years). The average costs incurred by a

¹¹ This applies only for novice drivers under the age of 21 years when the first provisional licence is granted. The "P1 Probationary Licence" is not issued to novice drivers over the age of 21 years; they proceed immediately to the three-year "P2 Probationary Licence" phase.

novice driver to obtain a driving licence amount to the equivalent of around 570 Euros.

Curriculum

The required content for the acquisition of theoretical knowledge and practical skills is anchored in the teaching/learning media supporting independent theory learning (see below). A four-stage learning process is defined as a framework for practical driving instruction and accompanied driving. It begins by addressing vehicle control (Stage 1), followed by driving on quiet roads (Stage 2) and in difficult driving situations (Stage 3), and finally the preparation for solo driving (Stage 4). Specific learning objectives are given for each stage. In addition, behaviour recommendations are provided for lay trainers/accompanists, and appropriate practice methods are suggested.

Teaching and learning forms

Theory classes

The attendance at theory classes is voluntary and corresponding offers are used by only a very small proportion of novice drivers. Theoretical components are usually integrated into the practical driving instruction with a driving instructor, and involve discussions in the vehicle and demonstrations by the instructor.

Road safety education in schools

Some secondary schools offer courses relating to novice driver preparation for the 15 to 16-year-old age group. These courses convey exclusively theoretical knowledge and do not include any practical components.

Independent theory learning

Novice drivers prepare for the knowledge test primarily by way of independent theory learning. The test items used in the knowledge test are publicly accessible and may be used for test preparation. The traffic authority makes teaching/learning media available in printed and electronic form. Novice drivers receive a media package ("Learning Kit") comprising a text book, a logbook and a guide for lay trainers and accompanists.

Practical driving instruction

Practical driving instruction in a commercial driving school is not prescribed. Around 50 to 75 per cent of novice drivers make use of offers for professional training with a scope of up to 12 driving lessons (of 45 minutes each).

The teaching/learning methods typically used by professional driving instructors include driving on flexible routes in real traffic, "commentary driving", practical demonstrations by the instructor, "independent driving" and self-assessments of driving

skills by the novice driver himself. Practical driving instruction is realised as individual instruction. The training vehicle must be equipped with dual controls.

Practical driving instruction under the supervision of a lay trainer is subject to the same general conditions as accompanied driving (see below).

Accompanied driving

Practically all novice drivers make use of the possibility to gain driving experience under the supervision of a lay person (at the earliest from the age of 16 years). The prerequisite is that the novice driver has previously passed the knowledge test. During accompanied driving, the vehicle used must be marked accordingly as a learner vehicle. The novice driver must observe an absolute zeroalcohol rule, and the use of mobile telephones is similarly forbidden, even if a hands-free device is available. At least 120 hours of accompanied driving must be recorded over a period of at least 12 months, of which at least 10 hours must involve driving in the dark. All practice accumulated within the framework of accompanied driving must be documented in a logbook; in addition to the distance and the number of hours, notes must be made to indicate the types of road used, the traffic density, and the weather and light conditions.

The accompanist must be in possession of an unrestricted driving licence, and a maximum permissible blood alcohol content of 0.05 per cent must be observed. The accompanist is furthermore responsible for confirmation of the entries made in the novice driver's logbook. There is no limitation to a particular accompanist; any person who meets the aforementioned conditions may assume the role of an accompanist.

Solo driving under protective regulations

After passing the driving test, novice drivers are granted a provisional driving licence for a total of four years (three years in the case of novice drivers over the age of 21 years). During this period, they must observe an absolute zero-alcohol rule and are not permitted to drive particularly powerful vehicles. During the first 12 months ("P1 Probationary Licence"; novice drivers under the age of 21 years), no more than one passenger between the ages of 16 and 21 years may be in the vehicle, the vehicle must be marked with "P1" plates, use of a telephone is forbidden, even where a handsfree device is available, and it is not permitted to tow other vehicles. At the earliest after 12 months. this licence can be exchanged for an extended provisional licence with broader driving rights ("P2 Probationary Licence"). For example, holders of an extended provisional licence are permitted to use a hands-free telephone. During this second autonomous learning phase, the vehicle must be marked accordingly with "P2" plates.

Possible sanctions in response to traffic offences are monetary fines, driving bans, extensions of the probationary period and demerit points on the driver's record (between one and ten points are imposed for each traffic offence, depending on its severity). Holders of a provisional driving licence are subject to stricter regulations within this demerit points system: Five demerit points within a period of 12 moths already result in corresponding punishment measures, whereas a limit of 12 points applies for drivers with a full, unrestricted driving licence. If the maximum permissible number of points is exceeded, the licence holder can choose between two options: Firstly, the driving licence could be withdrawn for at least three months (this minimum period is increased by a further month for each point in excess of the 5 or 12-point threshold); alternatively, the driver may choose to retain his driving licence, but then under the condition that no further demerit points are received during the next 12 months (if further traffic offences are recorded during this time, the driving licence is withdrawn for twice the period which would have applied in case of immediate withdrawal). Following withdrawal of the driving licence, the authorities may also require repetition of the knowledge test, a driving test or attendance at a driver education measure, for example. In case of alcohol-related traffic offences, it may be stipulated that an alcohol interlock device be fitted to the ignition of the vehicle used.

Advanced training course

Novice drivers are offered various advanced driving courses on topics such as hazard recognition or emergency braking; relatively little use is made of such offers. Drivers who have lost their driving licence as a result of traffic offences may be required to attend improvement courses as a prerequisite for re-granting of the withdrawn licence.

Forms of testing

Knowledge test

The knowledge test is usually realised as a computer-based test; only a few test locations still use a "paper-and-pencil" test. To pass, at least 25 of the total of 32 test items (multiple-choice questions) must be answered correctly. The candidate is allowed around 20 minutes to complete the test. The test item instructions are in part illustrated with graphics, with traffic situations being depicted from either the driver's or a bird's-eye perspective.

At the end of the test, the candidate receives verbal and written feedback on the test and test result. The total points score is communicated and attention is drawn to subject areas in which test items were not answered correctly. The pass rate for the knowledge test is 90 per cent.

Traffic perception test

At the end of the supervised learning phase, novice drivers must take a traffic perception test. The candidate is shown a total of 28 video sequences of traffic situations and must click with the mouse to indicate when a particular action can be performed. The required driving action (slow down, overtake, turn or move off) is specified explicitly before each video sequence. The pass rate for the traffic perception test is 54 per cent.

Driving test

The driving test takes place in real traffic. The total test duration is 50 minutes, of which at least 30 minutes are assigned to the actual test drive. A professional driving instructor is permitted to be present in the vehicle during the driving test. The driving test examiner takes a rear seat.

Within the framework of technical preparation of the vehicle, the novice driver must first demonstrate the proper functioning of the turn indicators, brake lights, horn, headlights, windscreen wipers and hand brake. If any of these items is not in proper order, the driving test is not continued. The candidate must also show the control elements for the (rear screen) demister function.

The test drive follows a standardised route in real traffic and comprises two parts: The first part lasts around ten minutes and requires the candidate to perform certain simple driving tasks (on roads with a low to medium traffic density and a speed limit of 60 to 80 km/h), for example turning at junctions, changing lanes, reverse parking parallel to the direction of traffic or a three-point turn. The first part of the test is assessed separately by the driving test examiner, and an adequate test performance is at this point a prerequisite for continuation of the driving test. The subsequent second part involves more complex driving tasks, such as the negotiation of junctions on multiple-lane roads. During the test drive, the novice driver is given concrete driving instructions by the driving test examiner.

The driving test examiner assesses the candidate's execution of the set driving tasks on the basis of the following observation categories: "Traffic observation", "Signal use", "Gap selection", "Choice of speed", "Following distance", "Lateral position on the road", "Situation awareness when stopping",

"Parking" and "Vehicle control". Concrete assessment criteria are defined for each of these observation categories; the driving test examiner marks each criterion with "Yes" or "No" to indicate whether the requirements were met or not. The test result is determined by the total number of criteria which are satisfied. In addition, any "Critical" or "Immediate termination" errors are taken into account; the latter always result in immediate failure of the driving test.

Immediately after the test drive, the test result is communicated during a concluding discussion, which also addresses the areas in which further improvement of the candidate's driving skills is necessary. The novice driver also receives a test report. If the test is unsuccessful, a repeat attempt is possible at the earliest after a number of weeks. The pass rate for the driving test is around 65 per cent.

Quality assurance

Training of driving instructors

Admission to the profession of driving instructor is subject to possession of a full, unrestricted driving licence; this licence can be granted at the earliest from the age of 22 years. A medical examination is prescribed, and there must be no traffic-related or criminal offences on record against the candidate.

The certificate prescribed to be permitted to work as a driving instructor is granted after mandatory professional qualification training with a total scope of 360 hours. Within the framework of this training, the candidate takes written and oral knowledge tests and a practical driving test; he must furthermore give sample demonstrations of theory classes (or theoretical instruction in the vehicle) and practical driving instruction. The driving instructor licence is issued for a limited period only and must be renewed every three years. Further training is not prescribed in this context.

Further development

Possible starting points for long-term further development of the system of novice driver preparation are seen in the elaboration of competence-based approaches, which could permit better assessment and give greater support to driving competence acquisition, rather than assessing competence solely by way of a single driving test.