

Driver Training

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Abstract Road transport has become a very important part of supply chain management. The large number of vehicles in operation requests large number of qualified person to operate them. The lack of young person interested in this job and obstacles in the training and qualification process result in current labour market state when large number of person are missing.

Keywords drivers, training, qualification

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1. Introduction

Road transport is an inseparable part of almost every activity of human being. It's not possible to transport raw materials, semifinished products and products from a place of it's origin to a place of it's consumption without road transport vehicles. Indeed, road transport provides transport of manpower to a job or for relaxation. Disadvantages of road transport is production of green-house gasses, occupation of land for road infrastructure and production of waste that is hard to dispose in nature too.

Every vehicle has to be controlled by a human to perform it's functions. Human is not perfect in his principle so accidents caused in absolute majority by human happen as an accompaniment of road traffic.

Basic requirement to minimize the number and seriousness of mistakes caused by a human while driving a vehicle is improving his manual and theoretical skills. Even experienced driver might fall into stereotype in his practice and solve situations according to his previous experiences regardless of the innovations of vehicles and road infrastructure. These changes mean pressure to improve driver's knowledge and skills. It is essential to change the way of operating the vehicle by driver to ensure higher safety and optimisation of the transport cycle, minimisation of fuel consumption and reducing the production of emissions. Driver, his knowledge and skills are the basic attributes to fulfil these targets.

2. Legislation and Regulation

EU issued DIRECTIVE 2003/59/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 July

2003 to improve the theoretical and practical skills of drivers that sets the initial required age of drivers of certain class of vehicles and periodic training with scope and content of driver's training to be able to perform as drivers.

According to this directive, Slovak Republic issued Act 280/2006 Coll., on the initial qualification and periodic training of drivers of certain road vehicles. This legislative act sets the initial age for driving certain class of vehicles. The initial limits based on Slovakian trans-position of the EU directive are in Table 1.

Table 1. Age limits and requirements for initial qualification for driving vehicles according to Act 280/2006 Coll.

Vehicle class	18 years	20 years	21 years	23 years
C1 ; C1+E	140 hours			
C ; C+E	280 hours		140 hours	
D1 ; D1+E	280 hours		140 hours	
D ; D+E		280 hours	lines up to 50km 140 hours	140 hours

This version is valid for Slovakia from 1 January 2016. Till then, limits were 21 years for category C and C+E and 24 years for category D and D+E.

Legislation [7] sets for vehicles:

class B

a) motor vehicles except vehicles of category AM, A1, A2, A and T, with maximum authorized mass of 3 500 kg, designed to transport maximum eight person except the driver. Vehicle from this category is allowed to tow a trailer with maximum authorized mass weight of 750 kg.

b) motor vehicles according to section a) with trailer with maximum authorized mass over 750 kg, total maximum authorized mass of both vehicles is less than 4 250 kg.

class C1

includes motor vehicles except class D1 or D, with maximum authorized mass over 3 500 kg and less than 7 500 kg, constructed and designed to transport up to eight person except the driver. Trailer of maximum authorized mass to 750 kg might be coupled to a vehicle from this category.

class CIE

includes combinations of vehicles made up of a C1 class truck and a trailer with maximum authorized mass exceeding 750 kg and maximum authorized mass of this combination doesn't exceed 12 000 kg, or a combination of a class B vehicle and a trailer with maximum authorized mass exceeding 3 500 kg, total maximum authorized mass of this combination doesn't exceed 12 000 kg.

class C

includes vehicles other than those in class D1 or D that have been constructed and designated for transportation of no more than eight persons, excluding the driver, and whose maximum authorized mass exceeds 3,500 kg. A motor vehicle of this class may be coupled to a trailer with maximum authorized mass not exceeding 750 kg.

class CE

includes combinations made up of a class C motor vehicle and a trailer whose maximum authorized mass exceeds 750 kg.

class D1

includes motor vehicles constructed and designated for transportation of up to 16 persons, excluding the driver, and whose length does not exceed 8 m; a motor vehicle of this class may be coupled to a trailer with a maximum authorized mass not exceeding 750 kg.

class D1E

includes combinations made up of a class D1 towing vehicle and a trailer with a maximum authorized mass exceeding 750 kg.

class D

includes motor vehicles constructed and designated for transportation of more than eight persons, excluding the driver; a motor vehicle of this class may be coupled to a trailer with a maximum authorized mass not exceeding 750 kg.

class DE

includes combinations made up of a class D motor vehicle and a trailer with a maximum authorized mass exceeding 750 kg.

3. Historical overview

In past, BUS and trucks drivers were trained in driving schools according to orders from army. The new members of army were trained before they started their mandatory military service in army and got the relevant driving licence. They were drivers and got basic experience with driving the vehicles during the two year mandatory military service in army. Army had exceptions based on a valid edict in § 19. According to this, issuing of driving licences for vehicles of army and safety corps was under special regulation. Mem-

bers of army and safety corps were allowed to drive also civilian vehicles with these driving licences. After the two year mandatory military service in army, they left with certain experience with driving, maintaining and servicing the vehicles. Therefore market was supplied with trained drivers every year and the missing number of drivers was easy to supply from driving schools. After the cancellation of mandatory military service, this process that supplied new qualified drivers stopped as the army employed the drivers as civil employees who don't work for transport companies in civil sector anymore.

According to [4 a 5] minimum age to get driving licence for vehicles class C in civil sector was 18 years and class D 21 years. In 2010, these limits were modified by labour law No. 144 in § 78 as follows:

18 years for applicant to get the driving licence for vehicles class C1 and C1E, 21 years for applicant to get the driving licence for vehicles class C, CE, D1 and D1E, 24 years for applicant to get the driving licence for vehicles class D and DE. This change is valid up to this day even it is in conflict with mentioned labour law No. 280/2006 with later regulations valid from January 2016.

4. Actual state

According to latest information from ČESMAD Slovakia in masmedia – Slovak republic is missing almost 500 BUS drivers and 1900 truck drivers. ČESMAD Slovakia is the most powerful association focused on road transport in Slovakia. It has almost 900 members, companies from national and international transport market that have around 50 % of the total transport capacity in Slovak Republic.

It is important to highlight the fact, that driver with driving licence for vehicles class C1 is not interesting for the transport sector. These vehicles are not applicable for long-distance transport, only for regional transport needs. Long-distance transport needs drivers with driving licence for vehicles class C who are available only when they become 21 years old and class D when they become 24 years old. Who will do this profession then? It is very important to realize, that young people with ability to learn leave the secondary school at age of 18. If the student doesn't continue in study on a university, he gets a job on the company market already. He can get a driving licence for vehicles class C after 3 years in job and driving licence for vehicles class D after 6 years in job. Average person gets reasonable position in his job during this period. Only those who were not successful in their job or those who would like to fulfil their dream from childhood will attempt as truck and BUS drivers. The first group will probably do the job with lack of enthusiasm and with no motivation.

When a young person wants to get a driving licence, he has to register for training in some of the driving schools. Table 2 shows prices of one important driving school in Žilina.

Table 2. Fees for driving license valid from January 2017

Class	Price
B	650 €
Upgrade from B to C	850 €
Upgrade from B to D (without C)	1300 €
Upgrade from C to D	790 €
Upgrade from B to C+D	1400 €
Upgrade from C to C+E	380 €
Upgrade from D to D+E	400 €

It is clear, that significant amount of money is needed for young person to get a driving licence. Driving licence for vehicles class B = 650 €, upgrade from B to C = 850 €, upgrade from C to D = 790 €, licence to tow a trailer class E = 380 €. Every applicant has to pass health check = 50 €, psychotest = 50 €, first aid course = 30 €, basic driver qualification = 1100 €, fees for application = 150 €. Total costs to get a driving licence and all necessary documents for vehicles class C+E are 3 260 € and for class D+E are 4 050 €. Do young person have this amount of money available when average salary in Slovak republic in 2016 was 901 € brutto (before taxes)? It's important to realize, that young people want to start to their own families in this age, buy a flat and furnish it so this costs to get a driving licence are significant.

5. Training of drivers

If a driver wants to correctly use the power of his vehicle and minimize the fuel consumption, he needs to have significant knowledge about the engine, transmission and the whole vehicle. This knowledge is supposed to be explained in the driving school and basic qualification course. In real, driver gets only partial information. Nowadays vehicles are full of electronic devices and drivers are not trained to maintain and service this devices and vehicle itself in the courses. For example a BUS driver transporting people for a ski course in France – because of a faulty strap on the high pressure air intake line from turbocharger, engine lost the air intake boost pressure. A simple piece of a metal wire could be used to fix this failure but drivers were not capable of this simple repair. In past, secondary school profession named driver/serviceman was available and this student would easily fix this failure himself.

Another problem to mention is the fact, that vehicles in driving schools are much older than vehicles that will the new drivers use on daily basis. None of the transporters will send a vehicle abroad with more than 10 years. The problem is, that the authorisation for basic driver qualification and periodic driver qualification have mostly driving schools. How do the drivers feel, when they drive daily the most modern vehicles Volvo, Mercedes, Scania, Renault etc., with maximum authorized mass up to 40 tons, when they have to pass the driver qualification in driving school with old training vehicles. They see the whole qualification training as chicane from the government.

6. Conclusions

To solve the age problem, it is necessary to have consistent legislation. By using the options offered in the EU directive, it is possible to introduce an age limit for driving as per Table 1.

The quality of training can be achieved only by re-establishing a vocational school that will train future professional drivers. It is hard to imagine that a vehicle worth a several hundred thousand Euro with a cargo worth about as much is being driven by a driver who has just finished his training. Back in the day, a driver would gain experience by driving vehicles during his mandatory military service. If vocational schools requiring at least 3 years of training were to be established, the knowledge of drivers would be significantly broader, as would be the practical skills that they would be able to gain during their studies. These schools could be equipped with modern vehicles and shop premises where the future drivers would acquire manual skills.

How many drivers do we need to train? When we come to realize that in Slovakia there are 322,000 trucks and 9,000 buses registered, and considering we need an average of 1.5 drivers per vehicle, Slovakia needs 483,000 drivers who hold a Class C license and 13,500 bus drivers. Taking into account the natural retirement rate, annually we need 11,000 new C Class drivers and 310 bus drivers. Such vocational schools could be established in larger district cities.

Financing of such vocational schools would be secured partly by the government in the same way it already provides financing for other vocational schools, and the rest would be supplied by taxation imposed up-on the initial vehicle registration; alternatively, the so-called dual education could come into play. Another solution could be co-financing of the studies by students which would increase their motivation to gain maximum knowledge and skills.

The graduates of these vocational schools would get a C and C+E Class license and the very best ones might be granted D and D+E Class, suspended until they reach the necessary age.

Part of the education would be language training because drivers who travel abroad as part of their job must have the ability to communicate in a foreign language; we believe English should be the language of choice here.

REFERENCES

- [1] DIRECTIVE 2003/59/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of July 15, 2003, as subsequently amended.
- [2] Act No. 280/2006 as subsequently amended.
- [3] Decree of the Ministry of the Interior of the Slovak Republic No. 225/2004 Coll. of March 29, 2004, implementing certain provisions of the National Council of the Slovak Republic Act on road traffic as subsequently amended.
- [4] Decree of the Ministry of Interior 87/1964 Coll. on driver's licenses of May 21, 1964.

- [5] The National Council of the Slovak Republic Act No. 315/1996 Coll. on road traffic.
- [6] Act No. 08/2009 Coll. of December 3, 2008, on road traffic and amendments to certain acts.
- [7] Act No. 144/2010 Coll. of March 3, 2010, amending Act No. 8/2009 Coll. on road traffic and on amendments to certain acts as subsequently amended and on amendments to certain acts.