LEARNING TO DRIVE IN ACCOMPANIED DRIVING SYSTEM – PSYCHOLOGICAL AND EDUCATIONAL ASPECTS

Ewa Tokarczyk

Motor Transport Institute Motor Transport Psychology Department Jagiellonska Street 80, 03-301 Warsaw, Poland tel.: +48 22 8113231, ext. 335, fax: +48 22 8110906 e-mail: ewa.tokarczyk@its.waw.pl

Monika Ucińska

Motor Transport Institute Motor Transport Psychology Department Jagiellonska Street 80, 03-301 Warsaw, Poland tel.: +48 22 8113231, ext. 133, fax: +48 22 8110906 e-mail: monika.ucinska@its.waw.pl

Abstract

There are a lot of activities world-wide, aimed at increasing road safety. According to the statistics, young novice drivers are at the highest risk of being involved in crashes, and more often than other age groups, cause danger on the road. A proper driving education of teenagers and young persons may contribute to a decrease of accident risk. One of the solutions is accompanied driving, which currently exists in 17 European countries, USA, Canada, Australia, New Zealand. It allows a driver to start driver training before he or she has reached the legal age for receiving a driving license.

Currently, a draft of national law concerning drivers, which introduces accompanied driving, is being considered in Poland.

This study concerns drafting of the new regulations, and it constitutes a proposal of methodological and organizational solutions of accompanied driving, trainings and preparation of people participating in it in Poland.

The study describes the role of accompanying person as a lay instructor and as a model for road traffic behaviour.

Keywords: learning to drive, accompanied driving, accompanying person, road safety

1. Introduction

There are a lot of activities being performed around the world, which aim at increasing road safety. Statistics say that young novice drivers are at high risk of being involved in accidents, and more often than other age groups cause danger on the road. A proper driving education of teens (young people) may contribute to a decrease of accident risk during independent driving. One of the solutions is accompanied driving system. Currently it exists in 17 European countries, USA, Canada, Australia, New Zealand. It allows a driver to start driver training before he or she has reached the legal age for obtaining a driving license.

Despite the existence of different models of accompanied driving in different countries, the aim is the same – to allow the learner driver to practice driving in safe circumstances, gain experience and prepare novice drivers for a wide range of eventualities and reducing the possibility of mental overload in potentially risky situations.

The popularity of accompanied driving system varies greatly between the systems, from less than 1% in Spain to 80-90% in Sweden and Norway [5].

The age at which accompanied driving can begin is usually 16-17. There are sometimes requirements and minimum amounts of theory and practical lessons in driving schools to be fulfilled before accompanied driving can be practiced (for example Austria, France, Germany; no requirements in UK). The accompanying person must fulfil some conditions as well, like e.g. a minimum age (usually 21-30), possess driving experience without driving offences etc. Some countries have introduced mandatory induction trainings or introduction courses, and sometimes the accompanying person has to participate together with a learner in special sessions. The training car also has to be equipped with additional elements like "L" sign, additional mirrors, brakes, and clutch.

Data concerning the relationship between training and the accidents during or after the training are different and are not unequivocal [3, 10, 12]. For example experiences in Sweden and Norway suggest that high levels of pre-license accompanied practice can considerably reduce accident risk in the initial post-license phase [9]. Theory and knowledge suggest that as much as 5000-7000 km of accompanied driving experience is necessary to achieve this goal [5]. Learner drivers who gained experience having driven 118 hours with an accompanying person have up to 35% fewer road accidents than these ones who drove only for 41-17 hours.

The accompanied driving period itself is not dangerous, and accident risk is minimal.

Researchers point that the benefits of practicing with an accompanying person are 30 times bigger than the costs.

Accompanied driving is allowed in: Austria, Belgium, Estonia, Finland, France, Germany, Great Britain, Ireland, Italy, Latvia, Luxemburg, Malta, Northern Ireland, Norway, Slovenia, Spain, Sweden, and Switzerland.

Accompanied driving is not allowed in: Czech Republic, Denmark, Greece, Hungary, Lithuania, Netherlands, Poland, Portugal, and Slovakia¹.

2. Accompanied driving as a new form of training candidates for drivers in Poland – proposal of new regulations

The new draft guidelines about drivers [11] will potentially lower the age of candidates for drivers.

A person applying for a B category driving license, may having reached the age of 16, start practicing with accompanying person (it concerns only B category). B category driving license can be used in full after the age of 18.

Here are the requirements for learner drivers:

- minimum age to start training 16 years,
- obligatory initial course in professional driving school for learner driver (both theoretical and practical courses) certified with an internal exam, and after having received a certificate the mandatory period of accompanied driving can begin.

Requirements for the accompanying person:

- age between 28 to 65 years old,
- maximum 2nd degree of kinship,
- not penalized for offence or crime in road traffic,
- car owner for at least 5 years,
- holder of category B driving license for at least 7 years.

Before the beginning of accompanied driving with a learner driver, the accompanying person has to attend a course in a professional driving school. The proposal says, that necessary detailed plan of theoretical and practical topics for the accompanying person course will be defined by the

¹ Data from 2006

Ministry of Transport. If all the requirements are fulfilled, the professional driving school gives the person a certificate.

The accompanying person and learner driver is not allowed to drink alcohol or use any other drugs or medicines before driving.

The training car, like in most countries with this system of learning, has to be specially equipped:

- it must be a vehicle complying with the category for which the learner is applying (cat. B),
- it should be equipped with additional mirrors (internal and external), and factory installed emergency brake accessible from the passenger seat,
- the car should be labelled with a green square label and white letter 'L" placed in front and back of the car.

The accompanied driving is to be supervised by a professional school (OSK). This means, that OSK: initiates trainings for accompanying persons, initiates trainings and internal exams for learner drivers, organizes periodical meetings with professional instructors in the supervising driving school.

The minimum period for driving with an accompanying person must not be shorter than one year and not longer than two years.

There are also driving restrictions during accompanied driving. The person can not:

- drive outside Poland.
- tow a trailer,
- drive on motorways,
- go faster than 50 km/h inside build-up areas, and 80 km/h outside build-up areas.

Noncompliance with the above limitations imposes criminal responsibility and both learner driver and his accompanying person can be fined or receive a warning.

At the end of the training with an accompanying person, the professional driving school issues a certificate for the learner driver. After having received this certificate, the learner driver can sign up for the exam for his or her driving license.

3. Accompanying person

3.1. Accompanying person as lay instructor

Introducing new form of young drivers training through learning with an accompanying person assumes that the person will correct wrong actions taken by a driver and at the same time will help to form correct habits that are required.

Both theoretical knowledge as well as practical skills in, among others, vehicle operation, traffic regulations, performing correct manoeuvres and safe traffic activities, should be acquired by a participant during a course in professional driving school, through being observed by a professional driving instructor. An evidence of these skills is the result of internal exam and a certificate allowing to drive with an accompanying person. The abilities will be improved under accompanying person's supervision, under his influence and control.

Concerning accompanying person's activities, it is important, to take into consideration the fact that a participant is the person driving, and not the instructor. The accompanying person has two basic duties: he is a driving instructor and a person responsible for the driver's and other traffic participants safety, while driving with an inexperienced driver.

While performing his duties the accompanying person has a continuous and constant contact with the learner. This contact includes controlling driver's activities, teaching and providing explanations while driving, correcting mistakes made while driving and commenting on standards included in traffic regulations as well as behaviour of other traffic participants and their consequences. Reaching intended teaching targets depends, to a great extent, on the accompanying person's efforts, adequate selection of teaching methods (manner of passing the information should

match the level and current state of knowledge as well as driver's skills) and also on the abilities to make a young learner active.

The accompanying person should have a remarkable perception (work in constant traffic), good reflex (enabling effective reaction in a dangerous traffic situation), divisibility of attention (ability to discuss the mistakes made and observe current traffic situation at the same time), and also he should have an ease in speaking his mind in an understandable and clear manner. A useful ability is also a patience, since unskilled driver makes mistakes very often which require to be discussed repeatedly. Concentration of attention must be much stronger than average. What is needed, is also a higher level of visual-motor coordination as well as physical fitness. In performing activities as a non-professional instructor, a good eye sight is very important (need for recognizing distance, ability to differentiate colours) and hearing (in order to recognize correctly traffic sounds and functioning of car elements).

Teaching is a social situation that requires from the accompanying person certain predispositions including, among others, social maturity expressed by a proper attitude towards norms, including traffic rules and regulations.

Depending on individual personality features of the accompanying person, he will be, to a different extent, eager to provide information or evaluation, or to co-operate with driver or dominate him. It also depends on the accompanying person's character, when he will start to "withdraw" and allow his trainee to act independent. It is generally known that at the beginning of learning to drive the learners leave the estimation of safety and necessary signalling to accompanying person allowing themselves to concentrate only on keeping the direction of driving and performing correct steering activities. As their effectiveness increases they expect more independence. However, at the same time, together with an increase in skill, the feeling of confidence increases in a driver which manifests itself by, among others, the tendency to drive fast. It depends on the accompanying person to balance all these factors and ensure safe driving and appropriate learning skills by a driver.

3.2. Accompanying person as model of behaviour in road traffic

The project concerning regulations on teaching drivers by an accompanying person, provides that this person can be a family member related by blood or marriage, thus a person close to driver. It involves many additional problems resulting from a double role of the accompanying person: on one hand unprofessional driving instructor, a person controlling and being responsible for young learner's behaviours while driving and on the other hand a person with whom a young person meets in various life situations. These are situations when the accompanying person is a driver himself, but also other social situations in which he is observed by a young person. What we have here is a direct social influence understood as a process "as a result of which the change in behaviour, opinion or feelings of a person occurs as a result of what other people do, think or feel" [16]. In accordance with this definition the changes happen not only as a result of conscious but also unconscious, intentional but also unintentional influence.

Learning through driving with an accompanying person who is close, with whom the learner meets also in other situations is intended as learning through imitating - that is copying other people's behaviours taking the form of modelling, copying or/and identifying.

Modelling is learning by a person of new forms of behaviour, which takes place by observing other people's behaviours and effects which result from such behaviours [15]. Therefore it is a method of learning which leads to assimilating both positive and negative behavioural patterns (together with predicted consequences) from other persons constituting so called models.

A model in this case is an accompanying person, who in other situations is a driver. This kind of assimilation takes place without any obligation. What is more, the model's behaviour in a given situation, the motives for this behaviour and its effects have greater power of effect than what that person says, and what he, on a verbal or control level, wants to teach. An

accompanying person has to be aware of this kind of impact. It is not acceptable for a person himself driving with a young driver as a passenger to break the norms, rules or regulations, and while driving with a young learner as an accompanying person to require from him to drive according to the binding rules. It may turn out that being under control, a young learner will comply with the rules, however under no control he will act as his model. The essence of modelling is the fact, that what is important for the future behaviour of a learner is the behaviour imitated, and not its form. The form may undergo changes, depending on a specific situations. Therefore, what can be imitated, are all situations in which rules and norms are broken or neglected, but not only those which occur in traffic situations. And inversely, living according to the rules and norms in various situations will be transferred into traffic situations. It means that modelling is based on not only reflecting the model's behaviours but also on creative modifying these behaviours in accordance with observed rules. It stimulates the observer to similar but not necessarily the same behaviours, however always in accordance with rules represented by a model. So therefore it is a form of learning not only of behaviours but also norms, rules, values and attitudes.

Imitating is a kind of copying including the reflection of other people's behaviours. A learner behaves identically as the model, he does not make any changes, he repeats behaviours as they were acquired from the model.

Finally, imitating the behaviour may take the form of identification. It takes place when a person tries to make his own behaviour similar to that of the model through identifying with him, and at the same time wanting to acquire his features, feel like him. Identification is very often unconscious tendency to identify with a model with which the person feels strong emotional connection.

The strongest models will be persons who are: competent, having higher social level, having the ability to punish or award, more attractive, being an authority for the learner, emotionally connected with the learner.

Modelling is more effective when: it is a "live" influence, it takes place in natural situations, it is connected with an active participation of an observer (learner).

Usually we face this in the following situation: a young inexperienced learner - an accompanying person. As it was stressed before, it concerns not only the situation of direct influence when a young person is a driver and an accompanying person supervises the manner and style of driving and provides advice in this matter but also, and probably above all, it concerns situations in which a teenager is an observer of behaviours, attitudes, values, emotions and the like of a person accompanying in other life situations, including being a driver.

In this scope the accompanying person influences the young learner much more than a professional driving instructor. A professional having a certain amount of time may teach operation of vehicle, performing manoeuvres, traffic rules. An accompanying person during driving, influences the improvement of these skills. However, constituting an example for drivers, a model - who for obvious reasons usually cannot be a driving instructor - develops his attitude, norms and rules. It is down to the accompanying person to what extent he is aware of the influence, how he controls this influence, to what extent he uses it to create behaviours and attitudes supporting safe behaviour of a young driver in road traffic and not only when they are driving together but mostly when the driver starts driving by himself.

According to literature, parents play an important role in the management of teen driving as accompanying persons or when supervising novice drivers. Parents are likely to be responsible for the preparation of teenagers for the independent driving [13]. They are models who can create safe driver and they give their children a model for a driving style [1].

J. A. Groeger [4] suggested that during the supervised driving period novice drivers may not fully develop important safe driving habits, like e.g scanning and others, since they rely on verbal feedback provided by the supervising parent.

4. Proposal of methodological and organizational solutions of accompanied driving, trainings and accompanying persons

In European systems there are amounts of hours defined or/and amounts of kilometres, which the learner driver has to drive with an accompanying person, as well as other extra requirements (for example driving in different weather conditions) regarding the training process.

In France [8] the learner must drive at least 3000 km (1800 miles) during accompanied driving period, in a 1 to 3 years period. In Sweden [7, 9], the average practicing time is 112 hours under lay instruction and 14 hours under professional instruction. In Germany [2] during accompanied driving phase (about 3-6 months) the driver is advised to drive 3000-5000 km. in different circumstances and road traffic situations. In Austria [14] training starts with compulsory theory, and practical lessons then a minimum of 3000 km accompanied driving in three stages can take place (each stage minimum two weeks).

A lot of countries are trying to improve the quality of the accompanied driving phase by providing initial course for people who wanted to be private supervisors (Sweden) or feedback sessions (Austria, France) and preparing guidelines to the accompanying person on the goals and objectives of the practice period.

Our proposal for the program of accompanied driving has based on the experiences of other countries who have a strong tradition of accompanied driving.

4.1. System of training

The new draft for a national law concerning drivers introducing, among other things, the accompanied driving, defines only general assumptions of this system. A comparison with other UE countries systems shows that there is a necessity to go into details and specify the process of training with accompanying person. The proposals are as follows:

I stage: training in a professional driving school

The learner driver can start the standard driving school training from the age of 16. The course contains theoretical and practical trainings with a professional instructor. After this trainings, the learner driver will have to pass an internal test and receive a certificate in order to be able to begin his/her period with an accompanying person.

II stage: accompanied driving

The period for driving with an accompanying person can last for not less than one year and no more than two years. The draft suggests the institutions of periodical meetings - not less than once in two months - with a professional instructor in the supervising driving school.

Our proposals for training with accompanying person:

- in two months (between consultation meetings) the learner driver should drive with the accompanying person for a minimum of 1000 km, including at least 100 km in not built up or built up areas (it depends on the frequency of the driving lessons), at least 10 hours at night, if it is possible also in different weather conditions,
- the learner driver should keep a diary of driving hours, where he/she can note: the route of each driving, the distance, hours of driving, time of driving, road circumstances, road situations difficult, dangerous, stressful self-evaluation, self-confidence during driving possible doubts and questions,
- meetings and consultations with professional instructor (the same instructor who is guiding the learner driver in the professional driving school) in professional driving school (5 to 11 meetings). The consultation should last for 1 hour and contain discussions concerning information from the learner driver and his diary and 1 or 2 hours (within 5-11 meetings) onthe-road session,
- such a system, according to the time of its duration, gives the young driver the possibility to: driving with an accompanying person for at least between 5000 to 11000 km, driving with an

accompanying person for at least between 500 to 1100 km in conditions other than usual (built-up or not built-up area), driving with an accompanying person for at least between 50 to 110 hours at night.

The longer the period of driving with an accompanying person is, the more experience is gained with regard to driving in different road situations.

4.2. Training of accompanying persons

The drafted guidelines specify the formal requirements for the accompanying person and special course provided for them. The particular plan of this course will be defined by the Ministry of Transport.

Our proposal for the training of candidates for being an accompanying person is a two stage training.

I stage: theoretical part for a group of candidates

- 1,5 hours discussion with a psychologist the course handling topics such as: the knowledge of teenage behaviour (age 16-18), social learning, the influence of a non professional instructor on the attitudes and behaviours of learner driver, his/her self-evaluation, and the knowledge of the influence of alcohol, drugs and other medicines upon driver efficiency,
- 1,5 hours training with a professional instructor: the rules of training in an accompanied driving system formal limitations, basic instructions with regard to practical training, especially the rules of safety and responsibility of learner drivers and other road participants, dangerous situations on the road, risk perception on the road.

II stage: individual consultation with a professional instructor - about 1 hour. It should be the same instructor, who is guiding the learner driver in the professional driving school.

In the new draft of the national law, there are no additional requirements for professional driving instructors after they have completed their training. It seems that due to the specific characteristics of the group of novice drivers it is necessary to prepare the instructors how to work with this group of people. Our proposal is to include in the initial program for the instructor, the knowledge of the development of teenagers (age 16-18) and the influence a person may have on young people attitudes and behaviours, especially in road traffic, the knowledge of difficulties when working with young people age 16-18, and the methods of coping with difficult situations.

The introduction of these changes to the national driving training program in Poland will be very expensive due to the need for proper preparation of driving instructors, accompanying persons trainings, additional consultations of learner drivers etc.

Nevertheless, each activity saving human life and reducing accident risk is incomparable to the costs and time for learning right attitudes and behaviours in road traffic or gaining experiences as a driver.

Nowadays, there is not much research material (or only a small number) concerning the quality of accompanied driving. Considering the differences between individuals, their temperaments and personalities, one may pose the question how many hours or kilometres are necessary in order to achieve the right level of knowledge and become a safe driver.

The project presented above is only a proposal to a discussion. In spite of the lack of unequivocal opinions concerning the efficiency of driving in an accompanied driving system, the new form of learning and obtaining experience may be an alternative or a supplement to traditional trainings, simultaneously extending the number of different types of driving trainings.

Keskinen [6] summarizing the knowledge of the effects of accompanying driving said that: "most probably, the best practice for driver education would be a mixture of rather short periods of formal training [i.e. with professional instructors], alternated with long periods of informal training [i.e. accompanied practice with non-professionals, such as parents]."

References

- [1] Bianchi, A., Summala, H., *The "genetics" of driving behavior: parents' driving style predicts their children's driving style*, Accident Analysis and Prevention 36 pp. 665-659, 2004.
- [2] Biedliger, J., New Accompanied driving At 17 model In Germany, CIECA-VdTUEV Accompanied Driving workshop, Berlin 2006.
- [3] Gregersen, N. P., Young drivers overestimation of their own skill. An experiment on the relation between training strategy and skill, Accident Analysis and Prevention; 28 (2), pp. 243-250, 1996.
- [4] Groeger, J. A., *Understanding driving applying cognitive psychology to a complex everyday task*. Hove, Psychology Press, UK 2000.
- [5] Hendrix, M. A., Survey of Accompanied Driving. CIECA-VdTUEV Accompanied Driving workshop, Berlin 2006.
- [6] Keskinen, E. Accompanied driving. What we know and what we should know? CIECA-VdTUEV Accompanied Driving workshop, Berlin 2006.
- [7] Lay instruction during driver training A study how it is carried out and its impact on road safety, VTI Publication, 2002.
- [8] Machu, Ch., *The French way of Doing Things*. CIECA-VdTUEV Accompanied Driving workshop, Berlin 2006.
- [9] Mattsson, H., *Accompanied Driving in Sweden*. Presentation at CIECA-VdTUEV Accompanied Driving workshop, Berlin 2006.
- [10] Page, Y., Ouimet, M. C, Cuny, S. *An evaluation of the effectiveness of the supervised driver-training system in France*, Proc. Assos.Adv.Automot Med. Conf. 48, pp. 131-148, 2004.
- [11] Projekt Ustawy o kierujących pojazdami druk sejmowy Nr 1571 / 2007.
- [12] Sagberg, F., Gregersen, N. P. *Effect o flower age limit for practising* (in); Underwood G (ed). Traffic and transport psychology: theory and application. Proceedings of the ICTTP, Elsevier Science Ltd. pp. 171-178, The Netherlands Amsterdam 2004.
- [13] Simons-Morton, B., Ouimet, M. C., *Parent involvement in novice teen driving: a review of the literature*, National Institute of Child Health and Human Development, USA Bethesda 2006.
- [14] Winkelbauer, M., Combined Professional and Layman Driver Training Model in Austria. CIECA-VdTUEV Accompanied Driving workshop, Berlin 2006.
- [15] Wojcieszke, B., *Relacje interpersonalne* (w) Strelau, J., (red.) Psychologia. Podręcznik akademicki, T. 3, Gdańskie Wydawnictwo Psychologiczne, Gdańsk 2000.
- [16] Wojcieszke, B., *Człowiek wśród ludzi. Zarys psychologii społecznej*, Wydawnictwo Naukowe SCHOLAR, pp. 246, Warszawa 2003.

"The author's reward was sponsored by Society of Collective Management of Copyrights of Creators of Scientific and Technical Works KOPIPOL with registered office in Kielce with duties obtained on the ground of the art. 20 and art. 20^1 of law on copyrights and related rights."