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# **PROBLEMS OF FORMATION DRIVING SKILLS IN THE EDUCATIONAL PROCESS OF DRIVING SCHOOLS**

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## **ABSTRACT**

*The content of training programs in driving schools should be based on empirical data and focus on those psychomotor, cognitive and perceptual mental disabilities which associated with high accident rates for novice drivers. The curriculum should learn experience demonstrating existing safety practices and, thus, motivate young drivers to drive safely. Methods of training should be developed to address lifestyle problems and psychosocial factors that can mitigate any learning effects and lead to dangerous driving.*

*This article presents solutions that are defined as changing the paradigm of education in driving schools, which will allow you to redesign the process of training drivers on those aspects of driving that are associated with the risk of accidents. Thus, the study examines ways to reduce the accident rate of drivers who recently received a license to drive a car. To achieve the goal, accident statistics were analysed, depending on driving experience and age of drivers. Authors researched the works of specialists on this topic. The influence of the Internet and computer games on the psychology of novice drivers was also studied. As a result, the process of formation of driving skills in the entrepreneurial educational process of driving schools is described.*

*Statistics show a significant scale of road traffic offenses. Annually more than 80 million administrative violations are revealed. Participants of road traffic are obliged to comply with the requirements of legislation.*

*The purpose of the initial training of drivers should consist in obtaining the necessary knowledge, skills, which will enable them to obtain a driving license, but also to drive safely in traffic conditions. The ability to master the skills of safe driving is only partially limited to the psychology of young people and can be partially compensated by intensive driving lessons to acquire a driving experience. In the article analyzed the best practices, acquire a driving practice in relatively safe conditions. Therefore, the driver training system should be aimed at assessing the driver's level of possession of these qualities.*

*As a result, authors offer novice drivers to be demanding on the choice of a driver's school and consider the criteria by which you should choose a suitable and effective driver's school, which will give you complete and deep knowledge.*

**Keywords:** Dangerous Driving, Training, Driving Schools, Transport, Traffic Safety, Traffic Accidents, Novice Drivers.

## INTRODUCTION

Some young drivers have extremely high accident rates. For example, in 1995 in the United States, 16-year-old drivers became participants in 15 thousand accidents, compared to drivers aged 20 to 40 who participated in nine and four accidents, respectively. The main reason why young drivers are more vulnerable to road accidents is that they do not have the necessary skills and driving capabilities (Freydier et al., 2016). This is not surprising, because driving is a complex, independent activity, involving many basic tasks (for example, steering, braking) and skills of higher order (for example, perception of danger, problem solving), many of which are necessary for the safe operation of vehicles (Carter et al., 2014).

In view of the limited number of hours in driving schools, of course, it is desirable that young people receive the initial driving skills. Usually parents or older comrades teach the basics of driving, tell the driving mechanism, or teach institutes in technical specialties the appropriate discipline.

To obtain a driver's license in Russia, it is necessary to take an examination in Public Authority, which is called The State Traffic Safety Inspectorate (STSI) of the Ministry of Internal Affairs of the Russian Federation. Nevertheless, the teaching of driving skills in driving schools required to pass the STSI exam is not the sole purpose of training future drivers. The main goal of many driving schools is to train the driver's future driving skills, both on the technical side and on the psychological side.

It is assumed that drivers who have recently completed training in a driving school and who obtained the license should have a lower accident rate than those who did not study in a driving school or completed it long ago. Despite the belief in the value of safety, the program of driving schools for future drivers has not been proven effective (Isler et al., 2011). This may seem contradictory, but according to statistics, many driving schools teach formally, without considering such problems as the basics of medical knowledge, the psychology of drivers and others.

The authors of this article came to the conclusion that an adjustment of educational programs in driving schools is necessary. Driver training can be improved if attention is focused not only on knowledge of the basic theoretical driving skills, but also on solving the urgent problems of emergency situations. In this context, priority should be given to the study of driving conditions in which young drivers will be presented in an emergency risk situation. Of course, the challenge is to obtain such learning skills, both in real and virtual environments.

The content of training programs in driving schools should be based on empirical data and focus on those psychomotor, cognitive and perceptual mental disorders that were shown to be associated with a high accident rate for novice drivers. The curriculum should examine the experience of demonstrating existing safety methods and thus motivate young drivers to drive safely.

### Setting Objectives

The purpose of the study is to analyze the current state of driver training in driving schools, the study of statistics on road accidents involving drivers who have recently received a license to drive a car. The task of the study is to identify the main problems of the formation of

driving skills in the entrepreneurial educational process of driving schools. Substantiation of key focus areas for improving the efficiency of road traffic, in particular, by studying the relationship between driving experience and driver's age.

## LITERATURE REVIEW

At the present stage, areas of the human factor are being actively studied as part of hazardous driving, methods of instrumental qualification of drivers have been introduced, as part of preventive traffic accident prevention, the pedagogical bases of training drivers of motor vehicles are being developed (Hatfield et al., 2018).

A socio-psychological approach to the study of road traffic has been proposed, where the problem of conflict has become the subject of targeted research in transport psychology (Delhomme and Forward, 2014). In modern social psychology, the topic of road conflict is not actually represented.

Questions of psychology of road safety are acute in transport psychology (Gaynard, 2017; Novaco, 2015), at the same time, the psychological aspects that determine the aggressive driving style are not studied to the extent that this is required to ensure safety on the roads (Tan et al., 2017). It is the contradiction between the expressed social order for road safety and the lack of theoretical certainty of the "*dangerous (aggressive) style*" phenomenon, its psychological determination, which determines the relevance of the project.

Most researchers analyze the activity of the driver and the psychological reasons that reduce his professional reliability. So, within the framework of the system approach of transport psychology, they turn to driving in the context of extremity and personal determination of behavior behind the wheel (Markšaityte et al., 2017). Experts give predictions of the main types of behavior of road users (including styles of driving). The emphasis on the operational characteristics of the driver's activity is made by Regan and Hallett (2011). In these and other publications, driving a vehicle is considered as an activity, and activity in special (extreme) conditions.

## METHODOLOGY

Theoretical and methodological basis of the research includes the leading domestic and foreign papers in the field of entrepreneurial educational process of driving schools, including monographs, articles, and analytical reviews.

The research is based on common methods, like methods expert analysis, statistical analysis and comparative analysis, a system approach, synthesis, expert assessments, tabular and graphical data visualization techniques.

Interactive methods as contrasted with passive and active education methods require joint education: both students and a lecturer are education subjects, a lecturer comes as more experienced educational process organizer, given that all the participants interact with each other, exchange information, collectively solve problems, model situations, evaluate colleagues' actions and their own behavior.

The main products of the entertainment industry, which influence the formation of the sense of justice due to their mass prevalence, are games and video films. The game, being an element of the universal fundamental structure of culture, influences the formation of completely different spheres and forms of human activity. The problem of computer games now requires special attention, because, firstly, they have unconditional popularity among all age groups

(Haeger et al., 2018), and, secondly, the process of the game itself allows, under "virtual reality" conditions, to carry out actions related to the deprivation of the characters of the game life, and receive for them "reward" in the form of points, money, etc., which is impossible when playing "real". But when we say in our minds that these are just toys, our subconscious can take this quite realistically, no one has a guarantee that what is seen on the screen of the monitor will not be repeated in reality (Lang et al., 2018).

And if the generation of authors of the work got acquainted with computers at school age, having already fully formed character, then the new generation will play computer games, having barely learned to walk. What will the gaming companies offer? But in a number of countries, the law prohibits the sale of games in which violence and murder are manifested. Russia should be one of them.

### RESULTS

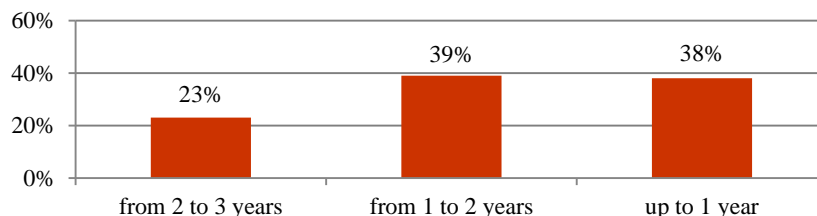
The analysis showed that the main culprits of accidents are drivers with experience of up to 2 years, their share in the total number of accidents up to 3 years is almost 40% annually distribution of the number of accidents depending on the experience (Pyankova and Fattakhov, 2017).

In a detailed analysis of road accidents, depending on the driving experience, a certain regularity was established: the peak of accidents among novice drivers falls around the end of the first year, the end of the second and the end of the third, i.e. in the ninth month, in the twenty-second month, and in the thirty-third (Table 1 & Figure 1).

In the analysis of accidents among novice drivers, you can highlight some features.

Driver experience, years	Driver's age			
	Less than 25	25-35	35-45	Over 45
1-2	23	19	18	16
2-4	20	19	16	13
4-7	18	16	13	18
7-11	16	13	11	9
More than 11	–	12	10	7

The main types of accidents are, in contrast to experienced drivers, where collisions and hitting a pedestrian lead almost equally (Petrov, 2017). The main places of the accident are the span and intersections, and on the span there are almost twice as many.



**FIGURE 1  
THE DISTRIBUTION OF THE NUMBER OF ACCIDENTS DEPENDING ON THE DRIVING EXPERIENCE**

The main road accident schemes are the passing direction of vehicles, vehicles do not turn, traffic accidents at intersections-the direction of vehicles-at a right angle, then comes a pedestrian outside the pedestrian crossing.

The main reasons for such traffic accidents among young drivers are the inconsistency of speed with specific driving conditions. Why is this happening? In our opinion, the answer lies in the lack of training in the auto school.

The number of families with a computer in our country is constantly growing, computers are becoming cheaper and more affordable, this problem is becoming global. For the time being, unfortunately, it is not discussed in the pages of scientific publications, which does not lead to its early resolution. Young people who are strongly influenced by the masses of media culture, after watching *Overdrive*, *Forsage*, *Taxi*, *Thirst for Speed*, *Race*, *Crazy Riding* and others, want to repeat similar actions in life as the characters of these films (Tronsmoen, 2008; Taubman-Ben-Ari, 2010).

The problems of the growing number of accidents involving young drivers led to certain consequences:

- In order to get the license to the category “A”, young driver must pass exercise “speed maneuvering” (“snake”, acceleration, braking, etc.).
- The test will be stopped ahead of schedule and the score "did not surrender" in the event of a motorcycle crash. Most often, a two-wheeled vehicle is dropped in the exercise "parking". The motorcyclist must get off the motorcycle and push it into the parking place with his hands. And then also hands to push it back. Just at the moment of transition from sitting to standing position, candidates often cannot cope with heavy two-wheeled transport. Therefore, this item appeared.
- When taking the exam for the category “B” to perform the exercises “driving into the box” and “parallel parking” you can only turn on the back gear once. That is, if a person could not perform the necessary maneuver at the same time, driver switched on the first speed, corrected the car and switched on the rear gear again, the exam will be overwhelmed. Earlier in the regulations there was only a time limit for this task.
- You cannot run into lines that indicate the boundaries of the exercise. Also, you cannot break the boundary of the "virtual wall" mirrors or bumpers.
- Video record from all examinations now it is necessary to store, not less than one month.
- You can take the exam from 17 years. But this only concerns the license of the category "B" and "C". The document on the hands will be given only at the performance of 18 years.
- The list of grounds for suspension of the service provision for taking exams for license was clarified. For example, the service will be suspended, if the State Traffic Safety Inspectorate (STSI) does not have information confirming the issuance of documents. For example, a certificate of education "driver" or a previously issued driver's license or medical assistance. A person can pass on the license, but he will receive them only when the reason for the suspension of the service will be eliminated.

From the above it can be concluded that as a result economic crisis and various reforms of the driving school market in Russia is not in the best position. Due to the influence of macroeconomic and microeconomic factors on their activities, the number of driving schools shrinking. Since not all driving schools can provide correctly equipped circuit and theoretical training classes, resulting in do not have a license to conduct educational activities. In the market of services there are only the largest and most popular driving schools.

## DISCUSSION

Questions about training that arise at the stage of choosing a driving school. When there is a reason to think about the choice of driving courses, the following selection criteria are usually set: price, convenient schedule, location of courses. What should I look for with comparable data?

### **Price: The Most Problematic Moment**

Question pricing is a popular way to attract the attention of students. Often, to search for students, a part of the price is voiced, which does not include, for example, the cost of the practical driving instruction. Or in the future, the cost increases significantly due to additional fees for entry to the circuit, other fees that were not voiced at the time of the training start.

### **Convenient Schedule**

It's no secret that most students are socially active enough. The training schedule should be quite flexible; a school with a small contingent of students often cannot meet this requirement. The rules of time will be difficult to choose because it will be more focused on the material resources of the school.

### **Location of Courses**

Oddly enough at first glance, this is not the most important argument. It is better to pay attention to the location of the autodrome, you cannot replace it with an online service system, and it is quite possible to master your studies with the help of Internet tools (Hayes and Richmond, 2017). Thus, at the stage of selecting courses, it is important to pay attention to the price of the service, to the scale of the institution and the availability of the choice of the group that best meets your needs, rather than the interests of the institution.

### **Questions that Arise at the Stage of Learning to Drive a Car**

In the process of learning, completely different questions arise: how quickly to master the material? What are the instructors? Are there any training simulators? Practice and theory “*What gives great confidence to a novice driver in the first year of self-driving a vehicle?*”? Therefore, it will be nice to know the answers before driving courses are paid!

### **Learning Methodology**

About this, few people ask when choosing a driving school, and very much at the same time lose. Methodology is the way in which professional skill is formed in an optimal period of time, for a driving school it is a driving skill. And here, a driving school with a long history of existence has clear advantages! Practice allows you to know exactly how to achieve the maximum success of the driver on the road, so that the graduate does not have accident statistics in the first and subsequent years. The author's technique is formed over the years, based on previously successfully applied in the practice of teaching methods.

## **Instructors**

An experienced instructor accurately and quickly identify the fears of the student, his weak and strong position as a potential driver. On this basis, the instructor focuses on the individual stages in the system of the formation of driver skills. It is not bad to take into account psychological and gender peculiarities-the choice will be the defining moment.

## **Simulators**

The presence of a good material base allows you to work out the skills and the correct reaction to emergency situations on the road at the subconscious level. Skill-the ability to apply the theory in a practical form, it is worked out on special simulators.

## **Education System**

An important feature of achieving professionalism is a combination of driving practice and theoretical knowledge. The ideal option would be to work out a block of theoretical knowledge at the level of obtaining skills in the gym or at the circuit (Wu et al., 2018). To evaluate the curriculum, it is important to know about the characteristics of the material equipment of the school and the features of the lesson plan.

At the stage of mastering the curriculum, it is important to have the author's methodology, a good material base of the educational institution, the possibility of choosing an instructor whom you trust. We need the opportunity to work out the theory in the process of practical training on simulators or the school's autodrome to get driving skills.

Questions arising from the qualification examinations on the knowledge of the rules of the road. The most important stage of training is to pass the theoretical stage on the knowledge of the rules of the road and driving practice. It is at this moment that all possible driving school problems appear that are often invisible in the process itself. The exam takes place on the car, mastered in the learning process or a new one? Surrender from the first time-is there a statistics of this indicator in school with a serious attitude to learning? Whether additional payment is required as compensation for the insufficient level of mastering the material.

## **Type of Transport**

When passing the qualification exam, it is important to take a test on the car that was used in the preparation. Each machine, regardless of brand, has its own characteristics. In conditions of insufficient driving experience and exam stress, confidence in a car is of particular value. Therefore, it would not be superfluous to clarify on which car the exam is held. Passing an exam on a vehicle with automatics does not give the right to subsequently control a vehicle with mechanics.

## **The Number of Attempts**

If, after training in a driving school, more than 50% pass the exam from the 1st time, this is a fact in favor of the quality of the school, taking into account the ability and attitude of some students to study. The availability of such statistics already serves as evidence of the level of administration of the school system. Should pay attention to this.

## **Position Instructor**

It is important his attitude to the readiness of the student to pass the test. If the driving instructor is focused on the result he will always support during the exam period by personal presence, attentive attitude to possible problems. To assess the skill of an instructor at the beginning of training stage, it will not hurt to study certificates, learn the experience of his finding as a teaching master, student reviews.

## **CONCLUSION**

Young people, as a rule, study the theory and skills of driving, for the sake of obtaining license. They are not particularly motivated to learn safe driving techniques, because at the moment they have very little driving experience. Optimal for driving schools would be homework with subsequent testing in the classroom, creative tasks, increasing the number of hours of theory and practice, writing the final work. The task facing the community for road safety is to find the best ways of training, which will reduce the accident rate, the risks of causing the life time and health of citizens.

The content of training programs in driving schools should be based on empirical data and focus on those psychomotor, cognitive and perceptual mental disabilities that have been shown to be associated with high accident rates for novice drivers. The curriculum should learn experience demonstrating existing safety practices and, thus, motivate young drivers to drive safely. Methods and methods of training should be developed to address lifestyle problems and psychosocial factors that can mitigate any learning effects and lead to dangerous driving.

Significance for society-as a result of complete and comprehensive training in the car school, a person will be able to acquire all the necessary driving skills, which will reduce the risk of accidents on the roads, reduce the statistics of road traffic accidents.

The importance of this problem for the government and policy makers shows that they need to revise the requirements for the content of the educational program in car schools, it is necessary to study more practical aspects related to risky forms of driving so that the future driver can cope with problem situations on the roads. It should include in the training of young drivers topics based on competence that recognize the individual differences of drivers and adapted to the various disadvantages of driving.

## **IMPLICATIONS**

Driving in driving schools should be concentrated in addition to the main program, and also on those aspects of driving that are associated with the risk of accidents. It is necessary to consider specific variants of accidents, and to propose to solve problems to prevent accidents. Nevertheless, the base of accidents that occur in a particular city is small enough, aspects of avoidance of accidents are not investigated, scientific research is practically not carried out, therefore, the empirical basis for curriculum development is limited.

The problem is that driving schools superficially study the theory and practice of driving because of the limited time frame. The total duration of studies is from 120 to 140 hours, 100 of which fall on the theoretical part of the class. The effectiveness of courses can be improved through a more sensible choice of content, an increase in the number of hours for training, with emphasis on those skills related to participation in emergencies, such as hazard identification and risk assessment.



The training of drivers can be improved if attention is focused not only on knowledge of key theoretical driving skills, but also on solving urgent problems of emergencies. In this context, priority should be given to the study of driving conditions in which young drivers will be presented in a risk situation of an accident. Of course, the challenge is to get such learning skills, both in real and virtual conditions.

The age factor is also of great importance when driving. Newcomers of adolescence are more likely to fall into an accident than older people (Shimada et al., 2018). Most often their main motivation is simply getting a driver's license. And regardless of their skill level, young people are relatively immature and unmotivated in the field of safe driving. Driving schools teach primary security skills, but students do not realize the full responsibility for road traffic. The statistics of various countries, including Russia, shows that young drivers aged 18 to 24 are participants and perpetrators of crashes 5-7 times more often than drivers aged 30 or more years. The main reasons for this is the lack of experience and a number of features of behavior including those caused by age development of the brain.

In Holland in 2017, drivers aged 18 to 25 accounted for about 9% of all drivers, but participated in 23% of accidents with fatalities and serious injuries. Similar patterns are typical for all countries, which can be explained as features of the development of the psyche of young people and, accordingly, their behavior and the quality of education in driving schools.

The greatest risk of falling into an accident exists within the first year after receiving the driver's license, but then decreases as the driver's experience is acquired. If we talk about the degree of risk in driving for men and women aged 18-25 years, men show a significantly higher accident rate. Young drivers are more likely than experienced to get into so-called single accidents when the car leaves the road or crashes into a stationary obstacle. Young drivers also make more attacks on the other car from behind.

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