

Psychological Support for Drivers in Polish Police

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Abstract. *The objective of this article is to present an issue of psychological support for drivers, including drivers of emergency vehicles in the Polish Police. The publication will include preliminary results of scientific research conducted among senior management in the Polish Police — Regional Police Commanders and their deputies. Furthermore, the outline of support system concerning drivers' psychological tests created in Polish Police will be presented. The research described in this article has been financed from the funds allocated for the implementation of a research project of Police Academy in Szczytno "Development of a system supporting psychological tests for drivers in the Police" No. DOB-B107/20/01/2015. The project has been developed by a scientific-industry consortium and is financed from the funds of National Centre for Research and Development under the call for proposals no. 7/2015 for development and financing projects for defence and security of the state. The project aims to produce a system supporting psychological studies of police drivers, including drivers of emergency vehicles in the Police, in accordance with current legislation. The system will be implemented in a network technology that facilitates direct cooperation with the Police Data Transmission Network, which will provide the basis for the independence and security of acquiring and storing data. The system will enable testing without additional equipment apart from an appropriately configured computer set. It will be equipped with a device to calibrate the response time measurement methodology. The system will allow assessment of intellectual ability, psychomotor skills and personality using the objective, standardized and normalized tools of proven accuracy, with reliability above 0.7, on a group of police drivers.*

DOI: 10.5604/01.3001.0012.7500

<http://dx.doi.org/10.5604/01.3001.0012.7500>

Keywords: research, driver, psychology transport, security, information, Police

Introduction

Transport psychology is a field of psychology for which the subject of interest are phenomena related to road safety. The last fifty years have been a period of an intensive development of areas related to road safety in the world. At the same time, in Polish reality it has been a time of hard work on the development of accurate and reliable system of selection and psychological assessment of drivers, but also a strive to shape appropriate attitudes and behaviours of road users. Modern transport and road traffic psychology ought to function on the basis of such strong historical roots and, at the same time, on what is considered as modern and technologically advanced tools. Research in the area of psychology of transport is one of the essential components of the transport safety system. In the Polish reality more and more actions are taken (mostly by transportation psychologists) to build awareness of Polish drivers.

Currently, transportation psychologist is seen not only through the prism of testing drivers, but he is an expert in the field of culture and road safety, methods of prevention and intervention of post-traumatic stress disorder (PTSD), the organisation of transport psychology in Poland, Europe and the world, operations and use of tests and apparatus to test the professional drivers and candidates for this profession.

Due to the fact that in Poland a substantial number of fatal accidents is reported annually, undertaking the tasks in the field of preventive safety of the road traffic is a critical action to be performed by transportation psychologists. These activities focus on the development and the use of relevant programs aimed at improving the driving etiquette (shaping/changing attitudes in the road traffic) — thereby reducing the number of victims of road traffic accidents. These actions are also addressed to people who are already the victims of the aforementioned road traffic accidents. In Poland, preventive measures addressed to various groups of road users — the so called *risk groups* are also undertaken.

It should be remembered that road safety is a phenomenon, which requires taking account of many causes and circumstances of accidents. In Poland, the most important and still dominating element of road safety, which is the cause of the largest number of traffic accidents is excessive speed. The manner of driving a vehicle (speed) is dependent on abilities, individual risk assessment, motivations connected to traffic and the influence of other road users on the driver. Due to this decisions are made, which have a direct effect on road safety.

Actions connected with the improvement of road safety should be directed most importantly towards people; education, formulating the right attitudes and behaviours of all road users.

Results of the research

The most important asset of every organisation are people. The success or failure of the organisation primarily depends on them. Employees (human resources) in order to achieve the objectives set by supervisors must have appropriate qualification and competence. Competence is usually associated with knowledge or entitlements and it can be defined as „observable and measurable resultant of general knowledge and skills absorbed, mastered and applied in practice, mobilized by a man to solve the problem related to profession.”¹. Alternatively, this concept can be defined as „an ability to act in order to obtain results in a given situation by means of certain measures”².

Competence is an intermediate element between the professional qualifications and occupational training. In this way, competence and skills are treated equally. Competence (Latin. *competentia*) means suitability, compatibility, competent (Latin. *competens*) means suitable, compatible³. Competences and skills are something intermediate between knowledge in the form of formal qualifications and professional experience and strategy. In other words, it is an intermediate level between the current and future qualifications recognised on the basis of the strategy. Therefore, competence

¹ Mingotaud F, *Sprawny kierownik. Techniki osiągnięcia sukcesu*. Warsaw, 1994, p. 72.

² Thierry D, Sauret Ch, Monod N, *Zatrudnianie i kompetencje w przedsiębiorstwie w procesie zmian*. Warsaw, 1994, p. 90.

³ *Słownik wyrazów obcych*, 1980, p.372.

can be regarded as skills of the organization's strategy in a given period. This means that competences are skills already absorbed by an employee that are relevant for the given strategy, position of a certain organisation in the given period. Any analysis of current competences of employees always includes a review of their skills, formal qualifications, carrier and development plans, interests and professional experience.

According to a different concept, competences define the scope of duties, entitlements and responsibilities of the employee assigned to his organizational position. The above-mentioned scopes should be proportional in all work positions. Scope of duties (tasks) determines operations or functions assigned to a certain work position that results from the distribution of Police objectives, work technologies and type of equipment at a given position. Scope of duties at different positions is usually described in the form of various organizational documents in the institution. Rights ascribed to the given position determine the scope of organizational capabilities of a person employed on this position. They define limits of self-reliance in performing various activities and allocating resources. They allow to make decisions and perform actions necessary to achieve the objective and carry out tasks assigned to a given position or unit in an organisation, while the responsibility of a specific employee or group of people is expressed in bearing the consequences for the effects of their actions or refraining from their execution.

Competence refers to different areas and thereby we can make several classifications of it. The basic division was made by M. Armstrong into:

- Behavioural competence,
- Technical competence.

Behavioural competences define expectations for behaviours needed to obtain relevant results in areas such as teamwork, communication, leadership and decision-making. They are also referred to as „soft skills“. This competence is usually defined in the structure of competence.

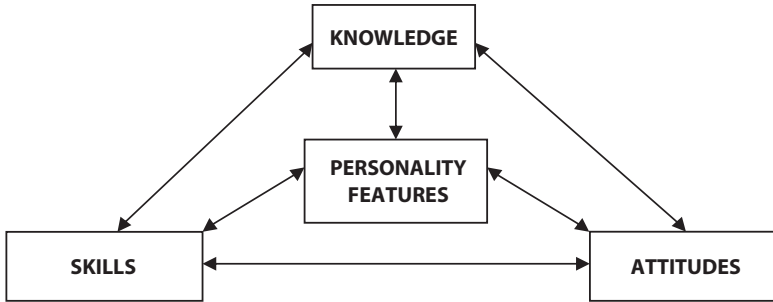
Technical competence defines what people need to know and be able to do (knowledge and skills) to effectively play their roles. They are associated with general roles (groups of similar roles) or individual roles (specific competence for roles). Specific competence for roles constitutes the basis of personal specifications used in the recruitment and development of individual learning programmes. The aforementioned types of competence are related to each other when assessing needs and requirements for a given role.

As one can notice in different definitions, although it shows diversity within the meaning of concepts, competence relates to the area of behaviour (attitude), knowledge (education), skills (experience) and entitlements at a workplace. Therefore, it can be concluded that competence is composed of:

- knowledge — including knowledge of 'what' (know-what), presented in sets of data and facts, knowledge 'why' (know-why), explaining the relationships between phenomena and processes, knowledge 'how' (know-how), reflected in practical activities, knowledge 'who' (know-who), indicating the people with knowledge of 'what', 'why' and 'how',
- skills — reflecting the knowledge 'how' (know-how),
- attitudes — indicating the way of responding to a particular object
- rights and powers whose scope is defined by the position in the organizational hierarchy.

Expectations set for drivers in the Police are exactly the same. After all, their abilities, knowledge and skills have impact on not only the quality of tasks performed by them but also the safety of all road users.

Figure 1. Interactive model of socio-psychological competence⁴



For this reason, the model of human resources management based on the competences has been operational for several years in the Polish Police. It involves „the use of this concept and the results of its analysis to improve recruitment and selection, performance management and employee development as well as the way of their remuneration. Therefore, the management plays an important role in all the major activities related to human resources. Human resources management based on competences is based primarily on the aforementioned behavioural and technical concepts⁵. The most important application areas of competence are:

- Recruitment and selection,
- Staff development — learning,
- Performance and efficiency management,
- Connection with wages.

Therefore, when analysing the use of competences in these areas, it is difficult to avoid the term „competence management“. This is an important part of the human resources management system based on competence.

In February 2016, the legislator introduced in Poland an obligation to perform medical examination of Police drivers and drivers of emergency vehicles by means of scientifically validated test methods. The reason for these activities was the fact that solutions which had been used before did not meet the new criteria for the accuracy of measurement and were often based on out-of-date knowledge. One could also notice a lack of tests, which could be performed to assess the link between test results and behaviours of the drivers of emergency vehicles.

Despite a systematic increase in safety of Polish roads in the last years, Poland is still one of the countries in the EU with the highest number of people killed in traffic accidents. Statistical data are unrelenting; within the years 2011 — 2014 Poland remained at the bottom of the list of European countries concerning road deaths

⁴ Konarski S, Turek D, Kompetencje społeczno-psychologiczne niezbędnym składnikiem kompetencji pracowników współczesnych przedsiębiorstw, [in:] Makowski K (Ed.), Zarządzanie zasobami ludzkimi a zdolności adaptacyjne przedsiębiorstw. Trudne obszary cz.1. Warsaw: Szkoła Główna Handlowa w Warszawie — Oficyna Wydawnicza, 2008, p. 39.

⁵ Armstrong M, Zarządzanie zasobami ludzkimi. Warsaw: Wolters Kluwer Polska, 2011, p.190.

per million inhabitants. This concerns both traffic and non-motorised road users (nearly every fifth pedestrian casualty in the EU died on Polish roads). Therefore, all organizational and legal efforts designated to improve road safety are of significance. It is worth noting, that the following provision appears in the priority objectives set for National Police Headquarters and District Police Headquarters for the years 2016 — 2018 approved by the Head Police Chief: Police actions directed towards improving road safety. It is of importance for the problem discussed in the publication to highlight, for the sake of the priorities, the need to “Improve the quality and effectiveness of Police work by successfully improving professional capabilities of officers and Police employees”.

Road safety is a resultant of a chain of factors. The conducted research concerning this category of safety shows significant correlation between safety and the psycho-physical abilities of a driver, his social adaptation, road manners, social discipline, and his abilities to cope with complex situations such as driving a vehicle. Efficient driving of a vehicle is therefore a chain of correlated capabilities, knowledge, skills, attitudes and emotions of a person. Proficiency in driving has three aspects:

- physical fitness (assessed during physical examination)
- psychological fitness (assessed during psychological examinations in terms of driving vehicles)
- knowledge, capabilities and attitudes of a driver⁶

However, the problem should not only be looked at from the perspective of a person (driver) as a unit, but also it should refer to the legal structure, to which this person is subjected. It should be assumed that the same laws and regulations apply to a Police driver as any other road user (Road Traffic Act of June 20, 1997, Journal of Laws from 2012.1137, consolidation). In accordance with Polish law, the basis for conducting mental examination of drivers is formulated by Vehicle Drivers Act of January 5, 2011, which states in art. 82 that the examination, hereinafter referred to as psychological examination in terms of transport psychology, intended for the determination of a driver’s psychological abilities to drive vehicles is used on persons seeking the right to drive emergency vehicles or vehicles used for the transport of monetary values, or extension of the validity date of such document.

Legal changes which took place in 2016 imposed the duty of carrying out examinations of Police drivers and emergency vehicle drivers with the aid of scientifically verified testing methods. Thus, a need arose to create an appropriate tool for assessing Police drivers; a tool that would not only fulfil all legal requirements, but also which would, in a more appropriate way than alternative solutions, allow to anticipate behaviour of drivers, increasing therefore road safety.

It should be noticed that the Polish Police, as the largest public organization in Poland since the change of a governmental structure in 1989, underwent numerous attempts of reforms, gradually moving from a centralised model (characteristic for the previous system) to a mixed model. These actions were in accordance with global tendencies and conditions which facilitated the development of Police new mission and strategy. Due to these changes, social expectations concerning the quality of services provided by the Police have significantly increased. The society expects all sorts of different effects including the ones on road safety.

⁶ Bąk J, Psychologiczne badanie kierowców. *Bezpieczeństwo pracy*, No. 6, 2004, p. 12.

Since 2016, Police Academy has been running a development project whose aim is to work out IT solutions supporting Police drivers. The research and developmental efforts undertaken in the project take into account the analysis of the most current worldwide research (commercial and non-commercial projects), which are not subjected to the information protection clause, according to which conducting research within the project will allow to develop a functional system based on modern IT technologies and compatible with the Police data transmission network that will support psychological examination of Police drivers, including emergency vehicle drivers.

The project will result in a system which will not only fulfil legal requirements, but also allow to anticipate driving behaviours in a more adequate way than alternative solutions, therefore, increase road safety. Moreover, it will personalise training and render staff management more effective.

Firstly, (the first out of 8 stages of the launched project) it was necessary to diagnose the problems which were noticed by Police executives. The table below shows the results of research concerning the issue of Police drivers conducted among Regional Police Commanders and their deputies.

1. Provide at least three situations, which may require specific skills of emergency vehicle drivers.

Situation		Skills
1.	Pursuit	Vehicle driving abilities — 32 answers Stress endurance — 30 answers
2.	Convoying	Stress endurance — 21 answers
3.	Almost each situation requires a driver with specific skills.	Stress endurance, situation assessment ability, driver's abilities — 32 answers

2. Assess the risk factors — their frequency and the potential impact of the results related to problems listed below. During this assessment make use of your personal experience and knowledge, do not refer to facts or opinions.

Particular problems	frequency					impact of results			
	never	rarely	average	frequent	constant	none	remote	noticeable	serious
Age-related problems of vehicle drivers (weak sight and slower reflexes after 40).		10	22				10	10	2
Excessive risk-taking.			2	30				28	4
Abusing the right to drive an emergency vehicle.		27	5				10	22	
Overreaction to stress.		2	1	29				32	
Problems with alcohol abuse.		31	1			1	30	1	
Problems connected with using other psychoactive substances.	19	8	5			25	7		

As the above research shows the Police executives define problems of Police vehicles drivers, including emergency vehicles.

In the next stage of the research the following effects are to be achieved:

1. Developing a set of psychological tests supporting drivers' examination.
2. Psychometric assessment and optimization of psychometric parameters
3. Verification and optimization of diagnosis accuracy
4. Norms establishing
5. Construction of data managing module
6. Developing system implementation

The objectives are to broaden the functionality of data analysis methods and to develop a unified drivers database and expert module which will support taking personnel and opinion decisions.

The developed system will provide a possibility to examine emergency vehicle drivers by the Police and Military Police for their internal purposes (also by other services under the authority of the Ministry of Internal Affairs and Administration or The Ministry of National Defence). The examinations currently take place in psychology labs subservient to the Ministry of Internal Affairs and Administration, specialist Police labs as well as external units.

On the one hand, it generates unnecessary costs, however, on the other, it is connected to a non-unified specific methodology in terms of testing methods and accepted norms and decisions.

Creating a unified database of emergency Police vehicle drivers will enable the development of a decision making system which will fulfil the following objectives:

- supporting decision of a psychologist (thanks to applying a modern methodology of IRT modelling the results will be more precise with a shorter test time. The psychologist, apart from gathering numerical data, will also receive decision suggestions based on statistical analysis);
- psychometrical analysis (the system will gather data, which will enable constant monitoring of decision accuracy given on the basis of test results, precise measurement and norms actualisation).
- a report-generating module for personnel management.

It is presumed that the system will define the strengths and weaknesses of each driver, simultaneously providing a recommendation that is based on concrete experience from previously accepted suggestions. This will facilitate a better use of each driver's potential in the Polish Police, including emergency vehicle drivers.

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Streszczenie. Celem artykułu jest ukazanie problematyki wsparcia psychologicznego kierowców, w tym kierowców pojazdów uprzywilejowanych w polskiej Policji. W publikacji zawarte zostaną wstępne wyniki badań naukowych, przeprowadzonych wśród kadry kierowniczej polskiej Policji wysokiego szczebla — komendantów wojewódzkich policji i ich zastępców. Przedstawiony zostanie również zarys stworzonego w polskiej Policji systemu wspomagający badania psychologiczne kierowców. Opisanie w artykule badania są prowadzone w oparciu o przyznane środki finansowe na realizację projektu rozwojowego Wyższej Szkoły Policji w Szczytnie pt. „Opracowanie systemu wspomagania badań psychologicznych kierowców dla Policji”, Nr DOB-BIO7/20/01/2015 w konsorcjum naukowo-przemysłowym. Projekt finansowany jest ze środków Narodowego Centrum Badań i Rozwoju w ramach konkursu nr 7/2015 na wykonanie i finansowanie projektów realizowanych na rzecz obronności i bezpieczeństwa państwa. Projekt ma na celu wytworzenie systemu wspomagającego badania psychologiczne kierowców policyjnych, w tym kierowców pojazdów uprzywilejowanych Policji, zgodny z aktualnymi przepisami prawnymi. System będzie zrealizowany w sieciowej technologii informatycznej umożliwiającej bezpośrednią współpracę z Policyjną Siecią Transmisji Danych, co będzie stanowiło podstawę niezależności i bezpieczeństwa pozyskiwania i przechowywania danych. System będzie też umożliwiał badania bez konieczności używania dodatkowej aparatury poza odpowiednio skonfigurowanym zestawem komputerowym. Będzie wyposażony w urządzenie umożliwiającej kalibrację metodologii pomiaru czasu reakcji oraz umożliwiał ocenę sprawności intelektualnej, psychomotorycznej oraz osobowości za pomocą narzędzi o udowodnionej trafności, rzetelności powyżej 0,7, obiektywnych, wystandaryzowanych i znormalizowanych na grupie kierowców policyjnych.

Резюме. Цель статьи — представить проблемы психологической поддержки водителей, особенно водителей оперативных машин в польской полиции. В статье представлены предварительные результаты научных исследований, проведенных среди начальствующего состава польской полиции, т.е. воеводских начальников и их заместителей. Кроме того, в статье содержится основная информация на тему создаваемой в польской полиции системы психофизического исследования водителей. Исследование, описанное в статье, проводилось за счет финансовых средств, выделенных

на реализацию проекта развития Высшей школы полиции в г. Щитно «Разработка системы поддержки психофизического исследования водителей полиции» № DOB-B107 / 20/01/2015 в составе научно-промышленного консорциума.

Проект финансируется Национальным центром исследований и развития в рамках конкурса № 7/2015 на реализацию и финансирование проектов, реализуемых для обороны и безопасности государства. Целью проекта является создание системы поддержки психофизического исследования полицейских водителей, в том числе водителей полицейских оперативных автомобилей, в соответствии с действующим законодательством. Система будет создана с учетом сетевой информационной технологии, предоставляющей возможность напрямую связываться с Полицейской сетью передачи данных, которая станет основой автономности и безопасности получения и хранения данных. Система предоставит также возможность провести исследование без необходимости использовать дополнительные инструменты, кроме соответственно настроенного компьютера. Она будет оснащена устройством, с помощью которого можно определить способ измерения времени реакции полицейских водителей и оценить их интеллектуальную, психомоторную и личностную эффективность с использованием стандартизированных, нормализованных, объективных, проверенных инструментов, которых надежность составляет выше 0,7.

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