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SHAPING OF THE SAFETY CULTURE IN ROAD TRANSPORT – DIAGNOSIS AND PERSPECTIVES FOR DEVELOPMENT IN THE AREA OF EDUCATION POLICY

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ABSTRACT: The research objective of this article is to determine the possibilities to influence the shaping of the safety culture in road transport, taking into account the education policy of the state. As a result, the research problem is as follows: "What are the possibilities of effective shaping of the safety culture in transport by the state?". Therefore, a hypothesis was put forward, which comes down to the statement that the most effective way of shaping the safety culture in transport is to pursue an appropriate education policy. To achieve such a research objective, answer the research question and confirm the hypothesis, a range of theoretical research methods were applied, including comparison, analysis of literature, analysis of legal acts, synthesis and analysis, inference (induction and deduction), and abstraction.

KEYWORDS: transport, safety, safety culture

Introduction

At the beginning of 2020, we suddenly noticed that we were dealing with the COVID-19 virus, causing high incidence and death rates, which led to quick and expensive reactions of governments, local governments and inhabitants of the countries affected by the pandemic. For several years, roads worldwide have been developing a specific type of pandemic, claiming 1.35 million lives, resulting in ca. 50 million casualties every year as a result of road accidents. In the case of road traffic safety from a global perspective, the European Union is the region with the lowest road accident threat rates. The region shows rates of road accident fatalities over four times lower than the global average. Over the last 17 years, Poland took the disgraceful first place in the ranking of the most dangerous EU states. In 2019, Poland ranked the 4th most dangerous EU state in terms of the number of fatalities. That said, the risk of being a fatality in the context of the total population of Poland is still lower than in Romania, Bulgaria and Latvia; slightly higher than the EU average, over two times higher than in the United Kingdom, Sweden, the Netherlands and Denmark. Despite a systematic decrease in the number of fatalities, the results are worse than expected. National Road Safety Programme 2020 assumed a reduction in the number of fatalities in 2020 down to 2,000 seriously injured casualties from 11,491 in 2010 down to 6,900 in 2020 (CIOP, 2022a).

Selected issues related to road safety

The level of road safety can be defined as a product of several factors. The issue of safety appeared in numerous scientific disciplines, such as technology, psychology and medicine. The interaction between those factors creates an interrelated system: the driver as the user, the vehicle and the surroundings. This results from the fact that the level of safety depends on three basic factors, which are the driver's skills, the level of technical advancement of the vehicle and the condition of the road infrastructure.

The observations carried out so far have focused on the relations among the above factors (Komenda Główna Policji, 2016).

According to the Road Traffic Safety (RTS) classification, numerous characteristics of divisions were distinguished, one of which emphasises the significance of active and passive impacts. Active impacts occur when a vehicle driver makes a mistake due to a lack of skills or control over their vehicle. Passive impacts, on the other hand, are tied to the conditions of adverse weather or poor technical condition of roads (Stanek & Szczuraszek, 2008).

The issues related to road traffic safety can be clearly and transparently depicted by means of statistical data. The most important task of statistical data is to gather information and facts on the basis of which reflection, analysis and inference are carried out and which serve to find appropriate solutions for improving the analysed problems. As can be seen, the role of gathering and analysing data is quite significant and helpful in improving the quality of activities.

Over the last few years in Poland, data regarding the situation on public roads have been carefully recorded by proper institutions, such as the Police or Statistics Poland.

The data show the actual safety status, at the same time indicating the areas which need particular attention so that the situation on the roads could be improved. The annual and systematic investigations aim to demonstrate the effectiveness of the activities conducted and programmes deployed for the safety of road users.

The fact that the number of vehicles on the roads is growing leads to considerable traffic intensity, which, in turn, generates an increasing threat and a considerable growth in the number of accidents and collisions. Automotive concerns are offering ever newer solutions and propose futuristic cars with increased engine power. Such vehicles serve as an incentive to test their technical and speed capabilities during the ride, which entails a great risk of increasing the threat on the road. According to the statistics of the Police, nearly 33 million passenger cars and lorries are registered in Poland. In addition, ca. 4.6 million vehicles from abroad pass through the Polish lands. These numbers include tourists and transit. Despite such a high number of cars on the roads, safety improves every year. In 2020, 23,540 traffic accidents were reported in Poland – 2,491 people died. This number is more than 22 percent lower than in 2019 and more than 25 percent lower than in 2018. This means 418 and 371 fewer people compared to 2019 and 2018, respectively 26,463 people were injured, that is nearly 30 percent fewer than in 2018 and nearly 25 percent fewer than in 2019 (Policja.pl, 2022).

Safety culture in road transport – diagnosis

Culture is a multi-dimensional notion, and it should be treated as such; it has tangible and spiritual values. When set with safety, its spiritual dimension takes precedence. Thanks to the essence of the origin of both notions, the relationship between them can be analysed. According to Kamiński (2013), "the connections between culture and safety, particularly the effects of culture on safety, are as old as civilisations and relations between them". He also proves that the said relationship between safety and safety culture has always existed and always will.

Cieślarczyk (2010) was another person who attempted to characterise the issue of safety culture: he defined it as "a model of basic principles, standards, rules, symbols and beliefs affecting the manner of perception of challenges, opportunities and threats as well as the manner of perception of the sense safety and thinking about it, and the related behaviour and activity of entities".

A similar sentiment is aired by Piwowarski (2012), who claims that this is "the whole of the tangible and intangible achievements of the human beings that serve their broadly understood defences. In fact, it serves to maintain, restore and raise the level of safety of the given entity".

Despite the fact that both of the above definitions come from different authors, they touch upon the same aspects. Both scholars claim that both tangible and intangible achievements are included in the widely understood cultural heritage. In effect, transformations and evolution occur not only in terms of the cultural achievements of a nation itself but also – first and foremost – in terms of the meaning of the notion of safety culture. The interpretation of the notion acquires a new sense, paying particular attention to the needs related to modernisation and transformation of the measures and methods required for the completion of tasks. The analysis of subsequent stages of human work and close observation of all steps gives important guidelines on the basis of which regulations are formulated that ensure maximum safety during the performance of professional activities.

One can often hear the statement that the safety system has a direct connection with the safety culture. The above thesis can be confirmed by one of the basic tenets of the national strategy program regarding OHS: "The shaping and promotion of the safety culture by the refinement of the occupational health and safety management and development of modern system for education and information of the society in combination with the lifecycle from childhood to old-age pension" (CIOP, 2022b).

According to this strategy, it is key to make employees realise how important observance of regulations is for improvement in safety conditions and work culture. Accident analysis points to human mistakes as causes of accidents, not technical errors of machines and devices, as used to be believed. According to Gasparski (2003), "Threat avoidance is the basic survival mechanism, and the lack of care for safety might be treated as a deviation from the norm".

The main perpetrators of road accidents are vehicle drivers. Nearly 80% of all accidents are caused by them every year. The transport sector ranks third in Poland, right after the industry and the construction business, in terms of the number of fatalities in accidents at work; moreover, vehicle drivers are the group with the highest number of deaths in accidents at work.

Prevention of accidents in road transport should consist of widely understood optimisation of the work conditions of the driver, covering the issues of both adaptation of work to the human capabilities and careful selection of such people for the profession who meet the criteria arising from the nature of the tasks and activities performed by drivers and from their work conditions. This is so as the profession of the driver belongs to difficult and dangerous professions, that is, professions where work is related to threats to the life and health of the person performing it and to threats to other people. In the case of the profession of the driver, the threat to life and health results from a high level of mental stress during the driving activity, requiring special psychophysical predispositions from the driver (NIK, 2011).

The factors straining the driver as related to participation in road traffic are merely one of the groups of factors affecting the efficiency of drivers. The other group includes organisational factors related to the organisational culture and the safety culture in the transport company and the type of threats arising from the specific nature of transport.

The safety culture in the workplace includes the attitudes of employees towards matters regarding safety, generally, applicable norms of behaviour in this respect and values ascribed to safety, first and foremost to health and life. The notion of the safety culture is also referred to as a set of social, organisational and psychological factors which trigger activities protecting health and life both at work and out of work.

The main purposes of the shaping of the safety culture include the development and shaping of attitudes based on such values as health, safety, mutual understanding, good communication and joint responsibility. Ensuring safety in all areas of life, job security, effective protective measures against risk, and the absence of risk are the basic social goals in the new attitude to work safety. The safety culture can be described at several levels.

The most visible elements of the organisational culture (artefacts) include the way of treating clients (passengers, cargo recipients, service recipients), referring to each other, the clothes worn by employees, external signs of promotion of safety (posters, instructions, leaflets) (NIK, 2011).

Less visible levels of the organisational culture are more difficult to notice; these include the values and assumptions as to the world, the nature and people. However, only the knowledge of those less visible values helps understand the functioning of the given enterprise and the motives behind behaviours and allows insight into the areas of potential problems. The organisational culture of the enterprise includes the values, beliefs and norms of behaviour of all employees (not only drivers). The cultural message is taken over by people starting their work in the given enterprise in an automatic, often subconscious way. Information about the customs in the enterprise or the declared values, with which a new employee is familiarised dur-

ing the first conversations and training, is only a part of their cultural education.

Further education is given in their daily work and during more casual contact with other employees. This is when a new employee discovers the priority of the enterprise and adapts their behaviour to the expectations of others. However, they always affect the way in which the company functions. The level of the safety culture in a workplace determines the way it functions in terms of safety (NIK, 2011).

Examples of artefacts: visible signs of the safety culture – the technical quality of vehicles, procedures regarding technical inspections, equipment of the technical service, marking of vehicles, safeguards, danger signalisation, the order in cars, frequency of meetings devoted to safety, frequency of practical and theoretical training, behaviours of employees, inspections.

Examples of values:

- the mission and goals of the company – they show what we want to achieve through our actions and what is their point – what we really want to achieve: "no accidents", "health of our employees", observance of regulations, decrease in costs, becoming the leader in work safety,
- responsibility for safety: who is responsible for preventing accidents, is everyone responsible for themselves, is everyone jointly responsible also for the safety of co-workers, rewards and punishments – should safe work be rewarded (bonuses for driving without collisions), should risky work be punished (additional sanctions for breaking regulations and tickets) (CIOP, 2022c).

Investigating the safety culture allows getting to know and understand the processes determining the behaviour of employees. The organisational culture is sometimes defined as the personality of a company. It is investigated through a self-assessment, which deepens the awareness of the company regarding itself and makes management easier. Conclusions drawn from the self-assessment can serve organisational learning. Such investigations are also a way to involve employees and an excuse for promoting certain ideas, values and attitudes in the workplace. In road transport companies, the responsibility for causing accidents rests first and foremost on the driver, yet it seems that joint responsibility for dangerous situations caused by poor work organisation, technical neglect and interpersonal conflicts is being forgotten. Analysis of the work culture involves examining the climate and atmosphere in the entire workplace, not only among the drivers. This allows the identification of problem-causing areas and planning of an adequate intervention and so it increases motivation and boosts communication among all employees. Such action shapes attitudes of identification with all employees, not only with a group of friends and the closest co-workers (CIOP, 2022c).

The safety culture can be looked into at three levels: social level, enterprise level, and individual level. In the profession of the driver, just like in any other, there is a close relationship and feedback between the above levels of the safety culture. The work of the driver entails participation in the public road traffic. The attitudes, values and characteristic behaviours routed in the society affect the drivers doing their work outside the area of their employer. This causes additional difficulties and burdens for the driver, which affects the safety of employees. The specific nature of the profession of the driver also involves the fact that one's own safety, more often than not, affects the safety of others: passengers, pedestrians, and drivers – all participants in road traffic. One of the most important requirements for the safe work of drivers is the limitation of burdening factors and the skill of stress management. Taking into account and modifying the knowledge, attitudes, values, skills and behaviours of every employee, influence at the individual level is exerted. By shaping the safety culture at the level of the enterprise, one can influence such areas as commitment of the management, participation of employees, open and sincere communication, relations between employees and sense of belonging, education in OHS, and motivation for safe behaviours. However, it must be remembered that both forms of influence are interrelated (CIOP, 2022c).

Research methods

Accident rate studies indicate that the most frequent cause of accidents at work is human mistakes, including dangerous behaviours. In addition, numerous experts emphasise that most dangerous situations are initiated by human beings as a result of loss of control over the threat and themselves.

Safe behaviours are presented in the psychological literature in different aspects:
- as a relation between the ability and motivation regarding the safe performance of tasks,
- in relation to risk – as the opposite of risky behaviours,
- as an attitude towards threats,
- as the final result of preventive actions.

The behaviour of employees in a situation of risk may result from conscious choices aided by a full analysis of benefits and losses, habits, following the behaviour of others or observance of rules and standards.

Theories regarding the causes of dangerous behaviour and making mistakes list such items as insufficient experience and too shallow knowledge as required for the identification of threats. Experience also affects the amount of risk taken by human beings.

The way in which professional experience affects the safe behaviours of employees is ambiguous. On the one hand, as one performs work in the given position, knowledge of potential threats grows, spontaneity in behaviours shrinks, and awareness of dangers increases. On the other hand, sensorimotor abilities go down, and the reflexes decrease as one ages. Familiarity with the workplace and daily activities (e.g. travelling via the same routes) may lead to a lull in sensitivity to potential threats. Professional experience affects safe behaviours by the agency of the safety culture in the given workplace (CIOP, 2022c).

The main objective of shaping the safety culture at the individual level is to improve the knowledge, skills and motivation of individual employees of transport companies in the area of safe behaviours.

According to the studies published by CIOP PIB (Central Institute for Labour Protection – National Research Institute (CIOP, 2022a) high safety culture at work translates into high results of safe behaviours manifesting in avoiding dangerous situations on roads.

As said earlier, the road situation can be divided into four basic safety-affecting components: the vehicle, the road, the surroundings and other users and the driver. How are those components and their interactions condition safety on roads? From the point of view of the driver, however, the vehicle and the driver are the most important as we have the most control over the efficiency of those. From the vantage point of safety, the most important factor is the drivers themselves because, in the vast majority of cases, the cause of road accidents are mistakes and transgressions of drivers. At the level of information reception, this can be an erroneous perception; however, errors in attention are a much more frequent cause of dangerous situations on roads. Attention disturbances occur mostly in such situations as haste, talking through a mobile phone, focusing on accompanying activities – searching for a radio station or programming the GPS (CIOP, 2022c).

In the case of shaping the safety culture in road transport, influencing drivers themselves and their behaviours seems the most effective. In the first case, this can be achieved by training and individual conversations preceded by an examination of drivers' predispositions done for the purpose of informing about their strengths and weaknesses. In the other case, behaviours can be modified by skill training in safe driving schools, learning eco-driving and additional training drives. The training most often covers the following issues: component parts of the road situation, components of the process of the driver's functioning, types of mistakes, mistakes of perception, attention disturbances, personality and temperament conditioning, social relations with other users of the road, aggression, fatigue and drowsiness or ways to manage stress.

Numerous studies (carried out by CIOP PIB) show that the safety climate in the workplace remains in direct connection with accidents at work. These results are confirmed by conclusions of studies which found that organisational factors (connected with the safety climate, for instance) are direct and indirect predictors of accidents at work (CIOP, 2022c).

The above studies show that the higher the commitment of the management, the better the training activities, the better the relations between employees, the safer the behaviours, and the fewer the accidents. It might, then, be stated that the occurrence of accidents does not depend on the drivers exclusively but also on the situation in the workplace and the persons working in all positions, from technical service through the managerial and supervisory staff to the management board (CIOP, 2022a).

If study results show that safety on the roads correlates with multiple areas, for which persons in different positions at transport companies are responsible, then the actions increasing the safety culture in the workplace should cover all employees. Situational conditions, regardless of the level of the safety culture of the given entity, might, in certain situations, directly affect the degree of safety of the behaviours of employees. In the performance of the work of the driver, the situational conditions and individual predispositions may be more important than organisational factors as opposed to other professions. Despite this, the employer can take additional action to improve the efficiency and skills of the employees by way of educational activities or corrective actions of different sorts. The educational activities may consist of regular supplementation of the training carried out in the workplace with issues related to the safety culture in selected areas or in the performance of additional training devoted exclusively to the safety culture (CIOP, 2022a).

Bearing this in mind, training materials should contain general information about individual elements of the safety culture and specific examples related to the operation of the given company. The training should include positive and negative examples taken from different company documents (e.g. accident analyses) and from daily work. In particular, such training should draw attention to such issues as:

- the safety culture in the enterprise – how to understand this notion, what are the signs of the culture in the given place,
- methods for assessing the level of the safety culture in the given department or the entire workplace,
- communication devoted to safety covering the entire staff and individual teams,
- way of manifesting the involvement of the management in matters of safety and leadership skills,

- the role of middle management in the shaping and maintenance of the desirable safety culture,
- involvement of employees in matters regarding safety, the satisfaction of employees with the level of safety in their company,
- motivation systems leading to higher involvement in the promotion of safe behaviours,
- behaviours of employees – examples of risky behaviours and behaviours desirable in the workplace (CIOP, 2022a).

It also seems obvious that, if possible, the trainings should include workshops to be attended by employees. Such workshops for training participants could revolve around the following: identification of visible and hidden (values and assumptions) elements of the safety culture in the workplace, identification of dangerous behaviours of employees, analysis of causes and consequences of dangerous behaviours, methods of communication and conveyance of feedback regarding OHS.

An additional way of improving the efficiency of drivers could be practical training in driving under difficult conditions (on skidding pans), familiarisation of drivers with dangerous situations (for instance, loss of control over the vehicle during a skid) or performance of difficult and dangerous manoeuvres under supervision of instructors (CIOP, 2022a).

Results of the research

Elements of traffic education have been implemented in Poland since 1957. At present, traffic education in Poland starts in kindergarten. The content of the basic curriculum in primary school includes, in years 4 to 6 and in the subject of technology, "traffic education" and in higher years – basics of providing first aid in the subject of education for safety. The objectives of general education in the high school and the technical high school have been extended with the issues of respect for the norms, acquisition of knowledge and preventive action regarding road traffic safety. This content has been included, e.g. in the subjects of education for safety, physics and physical education. Traffic education is also carried out in different forms of out-of-school education.

Analysing that content, one might state that the main problems of traffic education in Poland and Europe can be classified in such categories as:
- High diversity of structures of traffic education in schools.
- Lack of provision of traffic education in some regions of the EU states.
- Ineffective discussions regarding mandatory and non-mandatory traffic education at schools.
- Financing of traffic education.

- Considerable differences between the demand and supply of traffic education.
- Outdated and ineffective teaching models (dissonance between theory and practice, teaching the theory and regulations only).
- Lack of places for practical education: lack of practical classes in actual road traffic.
- Lack of responsibility of teachers for the conveyance of knowledge of RTS caused by a high number of subjects in which it is conveyed (everyone, so no one in reality, is responsible).
- The marginalisation of traffic education in education facilities.
- Lack of incentive for teachers to teach those topics.
- Insufficient flow of information for teachers and their insufficient preparation for teaching the content.
- Acquisition of competencies for teaching RTS content is voluntary for teachers.
- Poor level of traffic education in the age group of older children and the children who will soon be able to acquire a license to drive vehicles.
- Lack of/insufficient educational knowledge of other people (e.g. police officers, municipal police officers) who are jointly responsible for traffic education.
- Lack of cooperation of the authorities with education facilities and lack of coordination at the national and/or local tear (BazTech, 2020)
- The good practices regarding road traffic safety education should:
- contain both theoretical and practical elements,
- focus on knowledge, skills and shaping of attitudes,
- be attractive and innovative for the target group, evoke interest and have an interesting form,
- be a part of the school system in a wide context,
- be based on cooperation,
- be easy to repeat to others,
- have proper content, correct instructions, and flow of information between the organiser and the recipient,
- have content formulated in a manner accessible to the implementer and the target group,
- be carried out in the proper place and time (BazTech, 2020).
- The recommendations indicate that for the activities for road traffic safety education to achieve optimal results, they must:
- be long-term,
- be carried out in cooperation with numerous circles – schools, parents, the local authorities, the police, officials, etc.,
- be practical and be carried out in actual road traffic,
- be of a preventive nature,

- be evaluated.

Training candidates for drivers is an area of adult education – andragogy. It causes both non-professional education (so-called amateur drivers) and professional education (professional drivers, driving instructors, lecturers, examiners of people applying for a licence to drive vehicles), mostly in the form of a course (BazTech, 2020).

Training and examining candidates for drivers, drivers themselves, candidates for instructors and examiners and instructors and examiners themselves are regulated by the relevant national legal acts such as the Road Traffic Act, the Vehicle Driver Act, the Economic Freedom Act and EU regulations and directives. In the international dimension, the entity playing an important role in terms of training and examining drivers is CIECA (Commission Internationale des Examens de Conduite Automobile) – an international organisation dealing with issues of training and examining candidates for drivers. The main objective of the activity of CIECA is the development of shared standards of evaluation and examination in Europe and improvement in road traffic safety in the member states. A system of training candidates for drivers should allow them to acquire:

- the knowledge and skills necessary for free and seamless driving of a vehicle,
- the skill of proper risk assessment (the skill of proper assessment of one's own abilities and the skill of dealing with difficult situations),
- the skill of identifying and taking into account the needs of other traffic participants and of communicating with them effectively,
- the necessary experience.

The effectiveness of the system for training and examining candidates for drivers and drivers themselves depends on the following:

- orienting the training towards shaping individual motivation for safe behaviours on the road and social responsibility, combined with the entire system of education in terms of RTS (traffic education for children and youth, social campaigns),
- effective and consistent enforcement of the law,
- use of motivating, individualised, interactive training means and methods,
- proper qualifications and competencies of the training staff (instructors and examiners),
- government, social and institutional support of effective activities towards refinement of the system for training of drivers.

Training of candidate drivers should focus on the following:

- shaping of risk awareness through individual experience,
- education of safe behaviours on the road,

- improvement in perceptive and cognitive skills and shaping of individual motivation and social responsibility,
- acquisition of better experience in driving the vehicle before acquisition of a driving license as compared to traditional education,
- supervision over a young, inexperienced driver during the first two years of them driving a vehicle after obtaining a driving license.

The best results of training for drivers might be brought about solely by the combination of the following forms and methods:

Basic training. The content of the training should result from precisely specified goals regarding specific cognitive and decision-making processes, personality traits, motor skills, attitudes and emotional states. The methods of teaching work must be properly selected with the goals of the training in mind: cognitive goal (understanding and proper practical use of the knowledge of human behaviour in road traffic, of the vehicle and of the road traffic rules), emotional goal (evocation and maintenance of safe behaviours on the road) and psychomotor goal (shaping of skills of taking proper action based on the gathered and processed information). In this respect, the most effective are the following: work in groups, discussions, peer-to-peer education, interactive multimedia programmes, and driving with a commentary.

- **Driving with a partner**. This solution consists in learning how to drive under the supervision of a person who is not a professional driving instructor. It allows the acquisition of much more experience than during the traditional training. Experts say that people learning with the traditional method cover around 300 km on average, while people learning with a partner cover 10 times more. The risk of participating in a road accident is 30% lower for a driver who started to learn how to drive with a partner at the age of 16 compared to a driver who was trained traditionally. No influence of this training method on the attitudes of young drivers was proven.
- **Driving licence for a trial period**. The purpose of the trial period, most often effective during the first two years from the acquisition of a driving license, is to strengthen and reinforce the behaviours of a driver by way of gradual familiarisation with different situations on the road and the acquisition of individual experiences. In that period, drivers remain under strict supervision and are subject to numerous limitations and tightened restrictions in case they violate the road traffic rules.
- **Additional training in road traffic safety**. The purpose of this training is to counteract excessive trust in one's own skills and abilities and re-sensitisation to threats in road traffic. Most frequently, this is a one-day training covering both theoretical topics and a practical drive. In Poland, control of the training and examination of candidates for drivers carried out by the Supreme Audit Office in 2001 showed a series of irreg-

ularities in this respect ever since attempts at repair have been without much success (NIK, 2011).

- **Road traffic safety campaigns** – they mostly have several chief goals, as follows:
  - conveyance of information about new or amended provisions of the law,
  - improvement in the knowledge and/or awareness related to the issues of RTS,
  - contribution to change in the attitudes and behaviours of road traffic participants,
  - contribution to reducing the number of road accidents and their casualties/fatalities.

From the pragmatic point of view, the intended or unintended purpose of supplementing every campaign could be to inform society that the authorities access given behaviours as risky and treat the issue of their elimination or minimisation as a priority. Preventive action in the field of road safety involves two levels of intervention. The first one concerns external factors, such as supervision, road traffic rules and engineering activities. The other concerns internal factors – personal motivations to act. Road traffic safety campaigns refer mostly to that other level of intervention. Statistics of road accidents are most frequently the point of departure for all activities regarding road traffic safety. They allow identification of the most important problems of road traffic safety, including risky behaviours and the types and severity of road accidents; they allow pointing out problems among different groups of road traffic participants. The paramount goal of all road traffic safety campaigns is to limit the number and severity of road accidents by way of influencing the attitudes and behaviours of road traffic participants. This requires that they be provided with proper knowledge and/or that their attitudes and beliefs are changed. Such activities must assume some form of communication with the so-called target group. As part of road traffic safety campaigns, communication most often requires the use of media channels (BazTech, 2020).

Discussions and Conclusions

The following conclusions can be drawn from the conducted analyses:

After many years of systematic decrease in the number of fatalities and casualties in road accidents over the last years, there has been stagnation, and even reversal, in this beneficial trend. This threatens the achievement of the objectives of the National Road Safety Programme and leads to an increase in the number of unnecessary tragedies on Polish roads.

Simple measures for improvement in road traffic safety have been exhausted, soft activities or not enough; it is necessary to apply an integrated approach based on knowledge and scientific research results supported by proper financial means. There is a real possibility of restoring the trend of the decreasing number of fatalities and seriously injured casualties in road accidents in Poland by 2030 and getting closer to the set assumptions. However, this requires the following:

- obtaining strong political support for the intensification of activities for road traffic safety, which seems to be the top priority right now,
- involving research institutions and teams for better identification of problems and for suggestion of effective and efficient methods for improving road traffic safety,
- consistently pursuing the assumptions of the National Road Safety Programme 2021-2030,
- appointing a leader, i.e. a competent leading institution responsible for the organisation of an integrated and multidisciplinary system for management of road traffic safety in Poland, responsible for the performance of the assumed programme of activities, supported by proper funds (BazTech, 2020).

Taking into account the above conclusions, it might be stated that the purpose of studies carried out by means of the research methods specified in the introduction was achieved. The research problem worded as follows: "what are the possibilities for the state to effectively shape the safety culture in transport?" was solved and, in turn, the research hypothesis worded as follows: "The most effective way of shaping the safety culture in transport is to pursue an appropriate education policy" was verified with a positive effect.

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