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Personal Development Through Defensive Driving Techniques: Implications in the Field of Emotional Intelligence Regarding the Age Factor

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Abstract: This paper intends to show the degree to which a personal development training in defensive driving techniques influences positively the driver's emotional intelligence.

Emotions are one of the factors that define us as human beings, and the ability to recognize and manage one's emotions can sometimes translate in avoiding a psychological and physical risk when driving a car.

Keywords: personal development, defensive driving, age differences, emotional intelligence.

INTRODUCTION

Tillmann and Hobbes (1949) in a study analyzing the relationship between involvement in accidents and general psychological characteristics, claimed that a man drives as he lives.

Personal development designates a psychological reality and a field of knowledge and psychological intervention that has experienced in recent decades a remarkable evolution, emerging as "a real social and educational permanent policy for the promotion of professional and social success and of psychological well-being (Olssen et all., 2004)

Thus, personal development is seen as a mental dynamic that involves becoming, transformation, empowerment, in short - evolution.

Ivancic and Hesketh (2000) present two experiments showing how participants learn from mistakes and explain why it is recommended that in the learning process we should allow ourselves to make mistakes. This aspect is taken into account by this personal development training in defensive driving techniques. Participants had the opportunity to make mistakes using a simulator.

Nass and colleagues conducted a study that reveals the impact of emotions on traffic performance (Nass et al., 2005). Using a simulator, they have shown that drivers who had positive emotions while driving made fewer mistakes / accidents and that negative moods predispose us to errors.

Stein and Book (2006) in the book "The EQ Edge" propose an approach to personal development in emotional intelligence education applying what they define as the principle of A, B, C, D, E shown in Figure 1. This approach suggests that a person should record the A, B, C, D and E's of his emotional experiences. A = trigger event; B = individual beliefs about a particular event or situation; C = the consequence of the reaction caused by B; D= means to debate, dispute and unload untruths about B; E = noting the effects of D, which is a form of reinforcement. The approach seems logical and necessary, but its success is subject to resistance to change.

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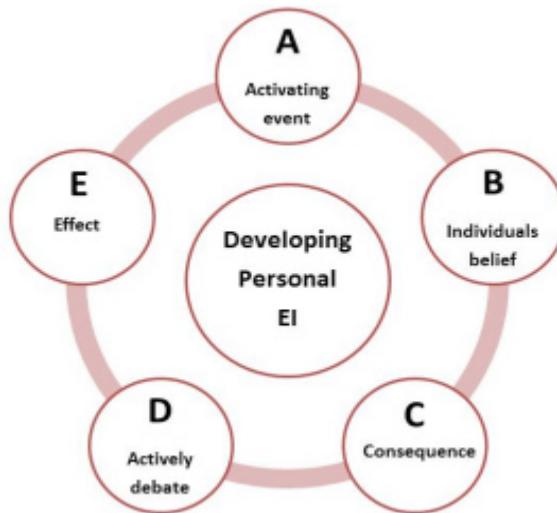


Figure 1. *Self coaching approach to personal EI development*

Figure 2 reflects the model of resistance that can be associated with the following formula $(V, D, S) > R$, where V = vision of the future.

In order for the emotional change to occur, it would be necessary for the person to have a clear vision of what he wants to be. This would be closely linked to the self-awareness domain that is the first step in the change process. Vision alone would not be enough to justify the effort required to achieve a comprehensive and long-term change, the person should become dissatisfied with his present emotions and reactions. S represents the first steps that a person must do in order to change (Eby et all., 2003; Owsley et all., 2003).

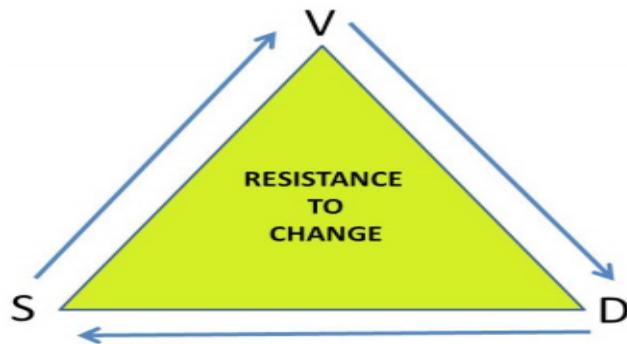


Figure 2. *Resistance to emotional change*

Emotional Intelligence

Goleman (1995) identifies at the level of emotional intelligence a series of constructs that form it and that might be called character traits of the human being: self-awareness (self-confidence), self-control (desire for truth, conscientiousness, adaptability innovation), motivation, empathy (understand others, diversity), social skills (influence, communication, conflict management, leadership, establishing relationships, collaboration, team work ability). Researchers in the field of emotional intelligence have shown that it has a mostly gained character, and educating it is relatively easy.

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The studies that analyzed the development of emotional intelligence over the years have shown that people evolve as they gain better control of their emotions and impulses, are easier motivated and cultivate their empathy and social flexibility. Elliott et all (2007) identifies three levels of driver behavior, namely: affective (emotional), cognitive and sensory-motor. He suggests that these three areas are all interrelated and should be addressed in driving competence development process. The affective level refers to "the will's behavior"; this level is the one that relates most powerful with the individual's emotional intelligence, meaning that it includes feelings, motives, needs and other structures related to goal oriented actions.

The second level, the cognitive level, refers to 'the behaviour of understanding' that includes thinking, reasoning and decision making. This level essentially relates to the individual's cognitive development.

The third level - sensory-motor - refers to the experience that is mediated through sensory-motor channels and includes the following aspects of driver behavior: automated habits, errors of perception, lacking in attention and performance due to fatigue, sleep, pain, drugs, boredom, inadequate preparation.

Mitrofan and Gâtej (2012) say that the time course of emotions is a stimulus followed by an emotion followed simultaneously by a physiological reaction and behavior. The time course of emotions is a natural process, but logic suggests that the better you understand triggers (emotional self-awareness and self-management), the more you will be better prepared to manage your reactions and your behavior towards the emotional stimulus.

According to the authors Bar-on, Maree and Elias (2007), adults can be educated and trained to better manage risk and to regulate their own emotional behavior. The authors mention the possibility to measure the emotional intelligence construct and the scientific importance of this type of intelligence. Also this authors show that people can be trained to be emotionally intelligent.

Sparrow et all (2006) subscribe to the theory that emotional intelligence should be viewed from both perspectives: the interpersonal and intrapersonal (within the person) and from the perspective of the relationship between these two domains. Intrapersonal competency concerns managing the self, whereas interpersonal addresses the issues of managing relationships. However, when viewing emotional intelligence in its totality, one comes to realize that these domains are mostly interdependent. Stein and Book (2006) define the interpersonal domain as the people's skills/ competencies to understand and interact with others in a variety of situations. The interpersonal domain covers the following:

- Empathy;
- Social Responsibility;
- Interpersonal Relations.

Defensive driving techniques

The act of driving is a highly complex occupation, partly due to time constraints for the detection, perception and processing of the information, before making a decision and react on a road full of unanticipated events. In this case, the driver is the solely authorized responsible for how it acts and reacts to incidents, and these depend entirely on its ability to manage situations (Groeger, 2000).

Precisely because of those aspects mentioned above, the focus is increasingly more on defensive driving.

Defensive driving requires mental preparation for making a journey, anticipating dangerous situations, the mistakes of other drivers, adapting the driving stile to weather and road conditions, a tolerant attitude and respect for other drivers. To drive calmly and safely, the driver must be healthy, well rested and alert, be more

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aware of the vehicle driven, have a good reaction speed, must be able to hear abnormal sounds , if they occur, must observe the information provided by navigational instruments, have knowledge of road traffic, the environment and of the road with all the traffic signs appearing.

Defensive driving suggests good emotional management practices and translates to safe driving.

Elder et all (2008) identify five key elements of defensive driving:

- The view in front and sides of the vehicle;
- Using mirrors;
- Rear view;
- Importance of threat detection;
- Characteristics of the road and traffic participants.

A tool for predicting the behavior of defensive driving should use behavioral variables that are:

1. quantifiable and measurable in a simple and objective test, both on the trails and in real traffic;
2. not be understood by the participant as important or the behavior that is being studied could not be hidden by the participant due patterns, experience or limited cognitive ability. Hence a proper correspondence between the behaviour measured during testing and during daily driving (Dorn, 2008, 2009).

Significant differences regarding the age were also revealed by previous studies, especially in the management performance field, the emotional intelligence being an aspect that may influence driving reactions and counter-balance impulsive behaviours and gestures (Campagne et. all., 2003).

OBJECTIVE AND HYPOTHESES

Objective

The objective of this study is to see if there is a correlation between personal development through defensive driving techniques training and the emotional intelligence with all that it incorporates and which is that correlation.

Hypotheses

1. The hypothesis of the study: personal development training in-defensive driving techniques positively influences the emotional intelligence of the participant driver.
2. There are significant age-related differences in responsiveness to a personal development training through defensive driving technique.

METHOD

Participants

At the training attended 60 people aged between 18 and 65 years old, devided into two groups: 18 to 45 and 46 to 65. They were clients, beneficiaries of an organized training at the Academy Titi Aur.

Instruments

For measuring the emotional intelligence we used a scale designed by Schutte et.al (1998) and also an observation form that evaluates the emotional intelligence in traffic. These includes attitude in traffic, deffensive rules obey, thinking about other in trafic, judging situations in which another driver could be in danger, etc. These scores were corroborated, the maximum score being 30.

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Procedure

Participants attended a training in which the personal development provocative elements were elements of defensive driving. After a meditative exercise we moved forward to the actual challenge which consisted in confronting with the situation of a frontal impact and the car being overturned in a specifically designed simulator. In the second test the challenge consisted of watching clips with emotional impact and afterwards going through some practical exercises from the field of defensive driving on the track and in traffic. The evaluation with the proposed rating scale was made at the beginning and end of the training program. The participants attended 5 modules for 6 weeks.

The evaluation and classification of the results was done according to age.

RESULTS

In order to observe significant differences the T test for dependent samples was used.

Table 1. Description of values for averages of the two sets of data collected from the experimental sample in which the parameter EQ is regarded

		Average	N	SD*	Standard deviation of the average
Pair 1	EQ1	23.430	60	.35148	.04863
	EQ2	28.031	60	.39055	.05721

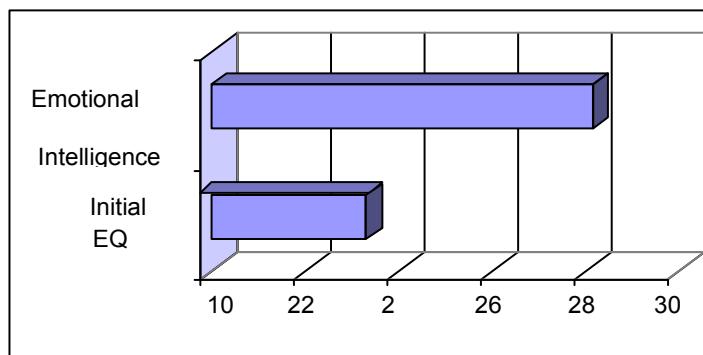


Table2. Results of the T test for the difference between the averages of two dependent samples

		Differences					t	df	Sig. (2-tailed)			
		Mean	SD*	Mean difference	95% Confidence interval of the Difference							
					Lower	Upper						
Pair 1	EQ.1 - EQ.2	-.25871	.34148	4.6014	-.23314	-.27514	-25.071	59	.001			

Given that $p = 0.001 < \alpha = 0.05$, the rejection of the null hypothesis can be stated.

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These results lead to the conclusion that empathy, emotional intelligence, attention to other traffic participants, adaptation using humane criteria in everyday traffic is possible through personal development and awareness.

Considering the above results, the assumption that a significant age-related difference in training receptivity is expected from the aspect of the "emotional intelligence" dimension following the application of the personal development model through defensive driving techniques ($m = 29.00$ vs. the result Age group 46-65 years at which $m = 25.47$) for $t = 12.80$ and $p < 0.05$; Confidence limits for increasing the parameter: "emotional intelligence" are located between 5.12 and 9.53, a range that indicates a good accuracy in measurement.

The conclusion of these results is that people between the ages of 45 and 65 are less receptive to personal development training through defensive driving techniques than people between the ages of 18 and 45.

CONCLUSIONS

Tillmann and Hobbes (1949) conclude that it would seem that the dangers in traffic and a history rich in accidents are just the manifestation of a certain way of living which is demonstrated in their personal lives. Truly it can be stated that a man drives as it lives. If his personal life is marked by caution, tolerance, respect for others and anticipation, then the wheel will behave the same way.

Experimental trainings lead to a reset of the human mind, centered on a pseudo-competition, shifting the focus from observing and punishing other traffic participants with an objective evaluation and adjustment of the behavior behind the wheel (Legree et all., 2003)

Controlling anger through breathing exercises and focusing attention, but also by finding constructive alternatives for the use of psychic energy that lies behind this feeling, gradually lead to orientation of the emotional energy to perfecting and performing responsible and harmonious in the activity of driving (Gâtej, 2013; Gâtej, Rizeanu, Ciolacu, 2016; Underwood et. all., 2003).

Experiential technique leads to a higher degree of awareness of the consequences of their attitudes, generating capacity in the same time to avoid the aggressive dangerous situations caused by other road users.

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