



Faculty of  
Psychology and  
Educational Sciences  
"Ovidius" University  
of Constanta, Romania

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The career of a driver begins at the bottom of the track. Until he reaches the two-meter height of the command post, he has to go through piles of books, dirty his hands up to his elbows, learn every piece of the hundreds of tons machine. Only then will the driving maneuvers begin at the station. Once the locomotive has become an extension of your body, he can get on the "route." This is, in fact, the real test: here I put the cognitive skills and the personality traits of my gay on the good performance of my professional activity.

The working day of a driver starts about two hours before boarding. He is present at the depot, where he is first tested for alcoholism. He checks the locomotive, receives a "minute" table of the route, receives a paper that proves the good work of the train, and then leads it to the platform.

The driver has the obligation to drive the locomotive (effective operation of locomotive commands to start, move and stop the locomotive and, as the case may be, the train or convoy of railway vehicles to which it is linked) but also to serve the locomotive operation (maintenance and surveillance of the locomotive's operation during towing of the trains, handling of railway vehicles and isolated locomotion).<sup>1</sup> The locomotive staff must also know the traffic sections of the train and the stations where they handle the operation of the railway vehicles.

During the service, the train crew must:

- have a decent attitude and appropriate behavior;
- have to have on it the following, during the execution of the service:
  - (1) the authorizations provided by the specific regulations;
  - (2) the necessary adjustments papers required to date;
  - (3) CFR signaling regulations, towing and braking regulations and instructions for the operation of rail locomotives;
  - (4) the troubleshooting guide/tutor for the type of locomotive he/she manages;
  - (5) a clock in proper operating state, according to official time;
  - (6) eyeglasses if the medical staff have recommended that they be used;
- be familiar with the operation, operation, in-service checking and debugging of the locomotive that it manages / serves in train towing or maneuvering;
- drive the train according to the traffic schedule, respectively to carry out the maneuver on time and in full safety of the traffic;
- not leave the locomotive at the end of the work program until all the removal and / or handover operations of the locomotive have been completed, or until the scheduled arrival of the shift, and in case of failure to present it, notify the management of the traction unit to take necessary measures
- keep, complete the locomotive roadmap and hand over that sheet to the head of the shift, in accordance with the regulations drawn up by the rail transport operator and the rail maneuver operator respectively;
- carry out all the operations required by the specific operating instructions for computer systems and traffic safety installed on locomotives.

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<sup>1</sup> Instructions for the activity of the railway staff - no. 201



### **Attention - introductory notions**

"Attention has an important place in the structure and dynamics of the human psychobehavioral system, even if it is not a process with its own and distinct reflective-informational content such as perception, representation, thinking or affective and motivational processes" (Enache & Giurgiu, 2017: 132).

In M. Golu's conception, attention can be defined as "physiological process of orientation, concentration and selective potentiation of specific psychic and psycho-behavioral functions and activities in relation to their own object and finality, ensuring them achieving an optimal level of efficiency adaptive. It is, above all, a primary condition, basically a state of general psychophysiological preparation, which is outlined in the diffuse state of wakefulness and which makes it possible to trigger a conscious psychic process of perception, memorization, reproduction, thinking or performance. of a motor action (externally)" (GOLU, 2007: 621).

"The physiological component from an ontogenetic point of view is based on the 'unconditional orientation reflex' determined by the novelty of stimuli, unexpected changes in the environment or in the body's own state" (P. Anohim, 1956, E. Sokov 1960, K. Pribram, 1971 apund. Golu M., 2002: 527).

"The psychic component is determined by the participation of intent and voluntary regulation that is activated by deliberation and specific commands under the pressure of external situations or internal conditions" (GOLU, 2007: 622)

"Subjectively, voluntary attention is aware as a state of tension, concentration, neuropsychic effort, and psycho-behavioral through selectivity and self-orientation imposed, deliberate, in relation to the content and manner of sensory, intellectual and motor acts. at the same time, voluntary attention manifests itself as an internal subjective way of combating disturbing, distracting and spreading influences" (Enache & Giurgiu, 2017: 133)

### **Personality - introductory notions**

According to Allport (1991: 60) personality "is the dynamic organization within the individual of those psychophysical systems that determine his characteristic thinking and behavior".

In the formation of the personality, which is a construction, the genetic factor serves it as a foundation, and as it is known any construction has a solid base, a foundation. After birth, the environment, especially the social one, acquires an increasing weight in shaping the personality, implicitly of the person (Pavelcu, 2001).

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The main means of personality building is motivated learning, leading to the progressive differentiation of behavior; by creating a mode of behavior, a dynamic stereotype, a system through which the person acts, a certain personality is achieved  
In its realization it goes through two main stages: the stage of the basic personality that is formed through the child's primary interaction with the family; and the stage of individual personality that is formed through interaction with social groups.

Personality is the general profile, determined by the combination of characteristics, which configures the unique nature of a person and conditions his reaction and interaction with others. Specialists have asked themselves: is personality genetic or is it formed by experience? Does personality depend on heredity, through genetic endowment, or on the environment in which the individual lives and develops? Attempts are often made to quantify, measure personality through questionnaires, sophisticated tests, observations and various correlations between personality



traits and the environment and the conclusion is that both forces, genetic dowry and the environment in which the individual lives and develops , blends into the personality configuration.

Although the genetic basis is an immutable fact, cultural norms and values have a very important role in the development of the individual's personality and behavior. Social factors reflect family life, religion and the multitude of formal and informal groups to which the individual belongs throughout life. Situational factors accentuate or diminish aspects of personality. Specialists agree in the statement that people develop in a continuum of dimensions, from immaturity to maturity, during three stages, corresponding to certain age segments (18 - 30 years, 30 - 45 years, 45 - 85+ years ), with an impact on everyone's life and career. The transition from one phase to another is sometimes painful, can last for 1-2 years and involves giving up the values and principles that animate a phase to integrate new values. This translates into refusing everything that was considered good until then and replacing it with something new. The change of phase implies major changes in the existence of the individual, such as the change of career, of friends, sometimes even of the life partner.

### **Objectives of research**

Taking into account the individual qualities of the tested person and the tools used, I made an assessment of the train drivers with the help of the psychologist employed at RTFC CFR Călători Constanța.

As objectives, I aimed to evaluate the distributional attention of mechanics by age and service (turnus, turn, daily) and their personality traits.

### **Research instruments**

For the study we used:

#### **1. Prague Distributive Attention Test.**

The sample consists of a large square divided into 100 squares with large and small letters, and in the lower part there are 7 columns with numbers and an empty space next to each number. The number of columns is searched in the large square in large characters and the number in the empty space is written in small characters. The test takes 10 minutes and records the number of errors and good results.

#### **2. The personality test is ZKPQ.**

- contains 5 scales:

- Sociability - Identifies extroverted and introverted individuals;
- Impulsive search for sensations:
  - Impulsivity - Describes the lack of planning and the tendency to act impulsively without a prior reflection.
  - Sensational Search - Describes the general need for sensations and agitation; the preference for unforeseen situations as well as the need for change and novelty.
- Activity - Describes the need for general activity, impatience and restlessness when there is nothing to be done. Concerning Work Attendance - indicates the preference for varied and sustained work, a high level of energy in day-to-day activities and other tasks.
- Anxiety / Neuroticism - Describes annoyances, emotional tensions, concerns, constant indecision, lack of self-confidence, and sensitivity to criticism.



- Aggressiveness / hostility - Predisposition to verbal expression of aggression, impoliteness, antisocial behavior, vengeance and enmity, volcanic temperament and impatience manifested in interpersonal relationships.
- Failure - Based on these items, subjects who have not responded sincerely or honestly can be removed.

### Participants

This study was attended by 35 mechanics, employed at Palas Depot, Constanta. They were aged between 28-52 years. (Table 1).

For ease of interpretation, we performed 3 classification criteria as follows:

- ☐ 28 - 35 years - 8 persons;
- ☐ 36 - 45 years - 20 persons;
- ☐ 46 and over - 7 people;

Table 1. Frequency of occurrence for the age variable

	Frequency	Percent
Valid age 28-35	8	22.9
age 36-45	20	57.1
age 46 or over	7	20.0
Total	35	100.0

The average age of the participants is 41.42 years, the median is 42, which means that 50 % of the participants are aged up to 42 years and 50% of them are aged over 42 years. The age with the highest occurrence frequency (mode) is 45 years, the minimum age being 28 years and the maximum age being 52 years. (Table 2).

Table 2. Start-up statistics for the age variable.

Age		
N	Valid	35
	Missing	0
Mean		41.4286
Median		42.0000
Mode		45.00
Minimum		28.00
Maximum		54.00

Depending on the service, 21 of them perform shifts, 9 of the mechanics perform a turnus, and 5 of them work every day, and they do the short-distance service. (Table 3).

Table 3. Frequency of occurrence for the service variable

	Frequency	Percent
Valid Shift	21	60.0
Turnus	9	25.7
Daily	5	14.3
Total	35	100.0

### Working procedure

To carry out the test, the questionnaire was applied to the Personnel School by self-administration, individually, respecting the completion time. The staff school is held regularly and here, the instructor transmits information, informs them of the new laws and discusses all the issues that arise in the professional activity. The data obtained were processed in SPSS version 19.

### Interpretation of data

After analyzing and processing the data, we obtained the following results:

Out of the total of 35 participants, 8 of them (22.9%) obtained a very high score, which means they have a very good distributional attention, 23 of the mechanics (65.71%) obtained a score between 57-66, which means that they have good distributional attention and 4 mechanics (11.43%) obtained a score of 43-56, which highlights the fact that they have a medium level distribution attention (fig. 1).

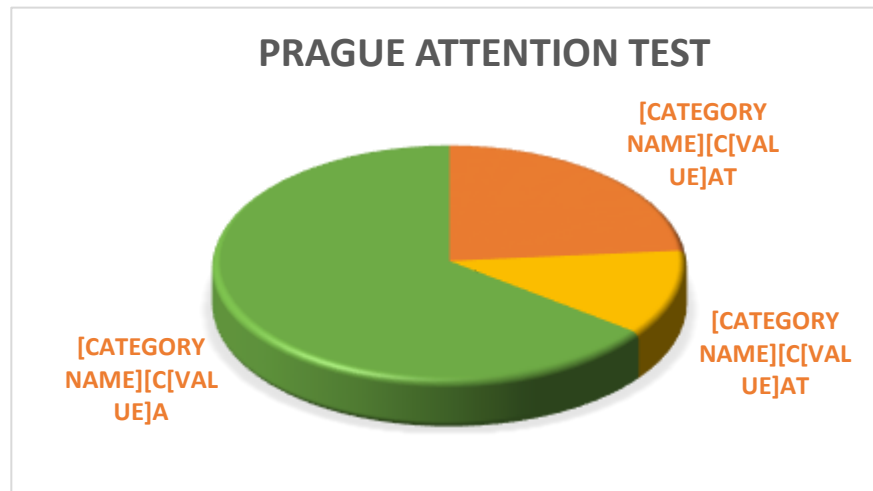


Fig. 1. Response Structure Diagram for the Attention Test

Making a more detailed analysis of the results obtained by age, we obtained the following:

◆ Age category 28-35 years - in equal proportions the subjects achieved good and very good results:

◆ 36-45 age group - 70% of subjects have good distributional attention; 15% of subjects have very good distributional attention and 15% of subjects have medium-level distributive attention.

◆ in the age category 46 and over - 71.43% of the subjects have a good distributional attention, the other subjects, in equal proportions (14.29%) having a medium and very good distributional attention. (Table 4).



Table 4. Frequency of occurrence of scores according to the subject's age

	Age			Total	
	28-35	36-45	45 and over		
Prague attention test	Very good	4	3	1	8
	Good	4	14	5	23
	Medium	0	3	1	4
Total	8	20	7	35	

We also applied the ZKPQ (Zukerman) personality test containing 5 scales: Aggressivity /hostility, Impulsive sensation, Activity, Anxiety / Neuroticism and Sociability.

Table 5 shows that:

- 26 subjects (74.3%) achieved a low score - they are characterized as a closed thread, do not like to stand out, accept what they are told and have no initiative.
- 9 subjects (25.7%) scored high - there are people who like to risk, are insistent and sometimes impulsive.

Table 5. Frequency of occurrence for the variable "impulsivity"

	Frequency	Percent
Valid Low score	26	74,3
High score	9	25,7
Total	35	100,0

In terms of anxiety, 14 subjects (68.57%) achieved a low score (they are balanced, altruist, helping when needed) and 11 subjects (31.43%) achieved high scores (emotional, insecure, concerned with small business). (Table 6).

Table 6. The occurrence frequency for the variable "anxiety"

	Frequency	Percent
Valid Low score	24	68,6
High score	11	31,4
Total	35	100,0

At the aggressivity variable (Table 7), 27 subjects 77.14% obtained a small score (characterized by tolerance, understanding, patience) and 8 subjects (22.86%) achieved a high score (they are impulsive, unable to handle to be criticized, do not follow rules, and sometimes show antisocial behavior towards others).





Table 7. The occurrence frequency for the variable "Aggressivity"

	Frequency	Percent
Valid Low score	27	77,1
High score	8	22,9
Total	35	100,0

Out of the total of 35 subjects attending the Staff School, 27 of them (77.14%) obtained a small score in the variable activity, which means they are quiet and calculated people, they are not recommended for work team and must be permanently verified. The other subjects (8 - 22.86%) achieved a high score, these people being characterized by stress resistance, are always acting and training others (Table 8).

Table 8. Frequency of occurrence for the variable "Activity"

	Frequency	Percent
Valid Low score	27	77,1
High score	8	22,9
Total	35	100,0

As for the "sociability" variable, it is observed that the percentages are approximately equal, 19 subjects (54.29%) obtained a high score, they are characterized by self-security, communicativeness, easily establish relationships with others and accommodate easily in any environment social.

16 subjects (45.71%) obtained low scores, these being introverted, timid, preferring seated, not looking for compression and feeling alone (Table 9).

Table 9. Statistical indicators for the variable "sociability"

	Frequency	Percent
Valid Low score	16	45,7
High score	19	54,3
Total	35	100,0

## Conclusions

The work of the locomotive driver is a complex professional activity, focused on the locomotive driving activity, an activity whose engagement involves the participation of perception and intelligence, attention and skills, affectivity and will.

Made by contact with the equipment on board the locomotive and deployed in a certain physical climate, this activity requires the whole body and, in particular, its neuropsychic subsystem.

Work tasks, locomotive cabin conditions, measuring, control and driving equipment generate for mechanics demands that determine different forms of effort and ways of responding.

The effort made by the mechanic causes a fatigue, which is all the more keen as the mechanic mobilizes all his resources so that it will not manifest itself until the end of the duty.



The occurrence of fatigue on the driver is reflected, on one hand, in changes in the response capacity to the stimuli encountered in the course of time, due to the diminishing of attention by limiting the information field, and, on the other hand, by the disorganization of the dynamic stereotypes necessary for driving of the locomotive due to the diminishing ability to use skills and abilities previously formed.

The combination of any of these effects, with other situational disturbances, can cause at any time wrong actions that may result in railway events and accidents.

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