

INTERRELATION BETWEEN INDIVIDUAL CREATIVITY AND STRESS MANAGEMENT PECULIARITIES



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Abstract. Article considers basic approaches to individual creativity research problem. Basic characteristics and peculiarities of stress as a psychological state are highlighted. Article analyzed ways of individual behavior in stressful situations: attack, escape, suppression, switching, displacement, collision. Mathematical and statistical data analysis was carried out in order to establish correlation relations. Authors present the results of empirical research of interrelation between individual creativity and student behavior strategies in stressful situations.

Keywords: *creativity, verbal creativity, non-verbal creativity, art, stress, stress resistance, coping strategy, student period.*

Setting up a research problem

Economic, social, and political conditions instability prevents a person to navigate in surrounding reality, by creating stressful situations. The most common factor that can cause this phenomenon is unknown; the causes of stress vary depending on persons' individual characteristics, lifestyle, environment, etc. Society needs active individuals capable of creative approach to problem situations. Individual's ability to look at the situation from the other side helps to adapt to social environment constant changes and requirements. To meet the challenges of modern times, society

is interested in identifying mental resources to form stress resistance and improve creative potential of a person, especially during student period, as this period is most favorable for psychological and social development. Becoming a specialist competent in various fields, with non-standard and original views, with high creativity level could contribute to problems and tasks solving.

Despite the large number of studies aimed at studying creativity, finding the determinants of its development, a significant number of issues remains insufficiently developed. Currently, possible interrelations between creativity and other individual characteristics, including behavior in stressful situations, are not fully explored making research in this field topical.

The purpose of the article. To empirically explore psychological peculiarities of the interrelation between creativity and student stress management peculiarities.

Analysis of recent researches and publications. Stress peculiarities were studied by such scholars as R. Lazarus, T.D. Wilson, P. Wong and others. Studying various aspects of this phenomenon, scientists have made a great contribution to the field of psychology, but never fully investigated this subject.

Founder of the theory of stress is a Canadian scientist Hans Selye [2, p. 9]. He introduced the concept of stress phase, highlighting the alert phase (mobilization of defense forces), resistance (adaptation to difficult situations), and exhaustion (the result of long-term stress action) [1; 10].

Hans Selye identified stress as "the universal organism response to irritants various by their nature". This means that good events (for example, work promotion), to which we must adapt, and bad ones (for example, the death of beloved person), to which we also must adapt, are physiologically expressed similarly. [3, p. 20].

Various aspects of this problem, effective ways to overcome and exit from stressful situations are continued to be studied.

Different aspects of creativity were studied by J. Gilford, S. Taylor, P. Torrens, S. Mednik, A. Maslow, V. M. Druzhinin and others. For a long time this psychological characteristic caused doubts and disputes.

E. Fromm understood creativity as the ability to wonder and learn, the ability to find solutions in non-standard situations, the focus on discovering a new and the ability to cognition of own experience [6, p. 11].

Creativity implies, from Sternberg point of view, the ability to go for reasonable risk, readiness to overcome obstacles, internal motivation, tolerance to uncertainty, readiness to resist the opinion of others [4, p. 199].

According to E. Torrance, creativity is not special, but general ability based on

constellation of common intelligence, individual characteristics and productive thinking ability [13, p.5].

Main research material.

Stress - the emotional state of the individual, which occurs in situations that violate the established course of his life. This state is a non-specific reaction of the organism to the requirements that are being put forward to it [8, p. 371].

Stress - a state of mental tension that occurs in humans during activities both in everyday life and in particularly difficult situations [11, p. 239].

Basic indirect factor between stress and individual is the process of perception and assessment of events by their significance, control capabilities, management resources [12, p. 194].

The concept of "coping behavior" (managing behavior) is used to characterize human behavior in different situations.

Managing strategies are being developed at the stage of secondary stressor assessment, resulting in one of three possible ways of managing stress:

- direct active actions of the individual in order to reduce or eliminate the danger;
- indirect or mental form without direct influence, impossible due to internal or external braking (displacement, reevaluation, suppression, switching, redirection of emotion in order to neutralize it, etc.);
- managing without emotions when the threat is not rated as real [12, p. 240].

One of possible ways of coping stress could be individual creativity, the ability to look at the situation from the other side, finding original approaches.

Creativity (from Latin Creatio - creation) is the ability of a person to generate unusual ideas, to find original solutions, to deviate from traditional patterns of thinking [5, p. 157].

Creativity manifests itself through personal feelings, reflections, knowledge, sensations, and actions. Creativity appears as a behavior in relative absence of threat and coercion from

environment. Creativity is perception, response, action and communication of personality, which is not compelled by others and in relaxed atmosphere [7, p. 25].

Creativity could be manifested in a certain area, in a special activity, but it could be comprehensive, when a person creatively approaches any cases [9, p. 26].

This research was conducted in SIHE "Uzhhorod National University". Sampling - 43 people. Subject's age: 18-20 years.

The following techniques were used: short test of creative thinking by E. P. Torrens, adaptation A.N. Voronin - subtest "Completion of drawings"; S. Mednyk's test "Diagnosis of verbal creativity" (adult version, adaptation by A. N. Voronin); questionnaire "Coping Strategies" by R. Lazarus; methodology "Psychological Stress Scale PSM-25"; questionnaire on determination of inclination to stress (Nemchinov and Taylor).

By the method of E. P. Torrens "diagnostics of non-verbal creativity" the following results were obtained:

1. Scale «Productivity»: high level - 100%; average level - 0%; low level - 0%.
2. Scale "Flexibility": high level -91%; average level -9%; low level -0%.
3. Scale "Originality": high level -0%; average level -63%; low level -37%.
4. Scale "Development": high level -16%; average level -75%; low level -9%.

Obtained results of this technique show that members of the sample can create a large number of ideas, diverse from different aspects. However, these ideas have lack of originality that is a deviation from standard and obvious.

Results, obtained using this technique, are presented in Fig.1.

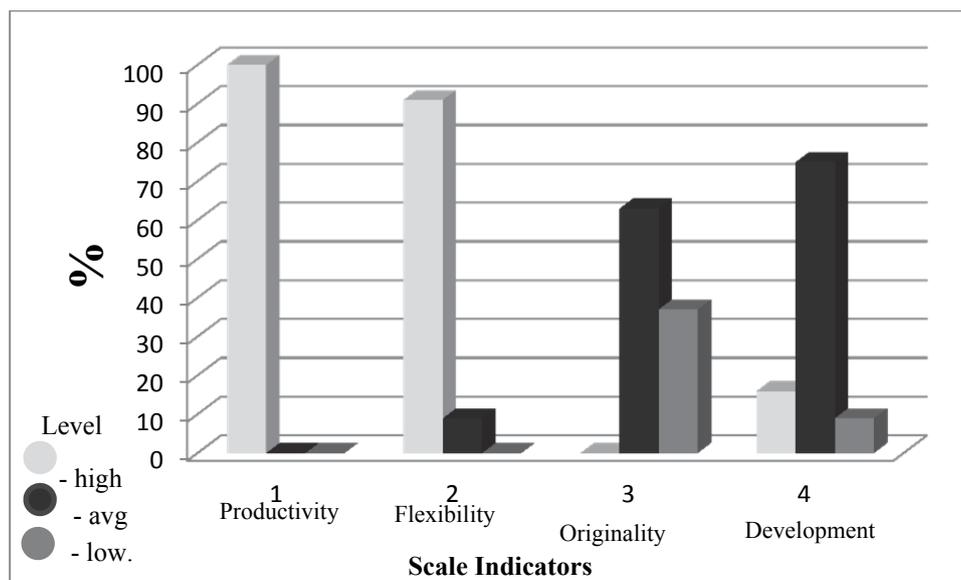


Fig. 1. Average indicators of the group studied using E. P. Torrens' method "Short Test of Creative Thinking"

Using S. Mednyk's method "Diagnosis of verbal creativity" the following results were obtained:

1. Originality index: high level - 46%; average level - 49%; low level - 5%.
2. Uniqueness index: high level -12%; average level - 21%; low level - 67%.

Results of this technique show that representatives of this sample are able to create a large number of ideas; however, a significant part of them will be obvious and not unique. Results, obtained using this technique, are presented in Fig.2.

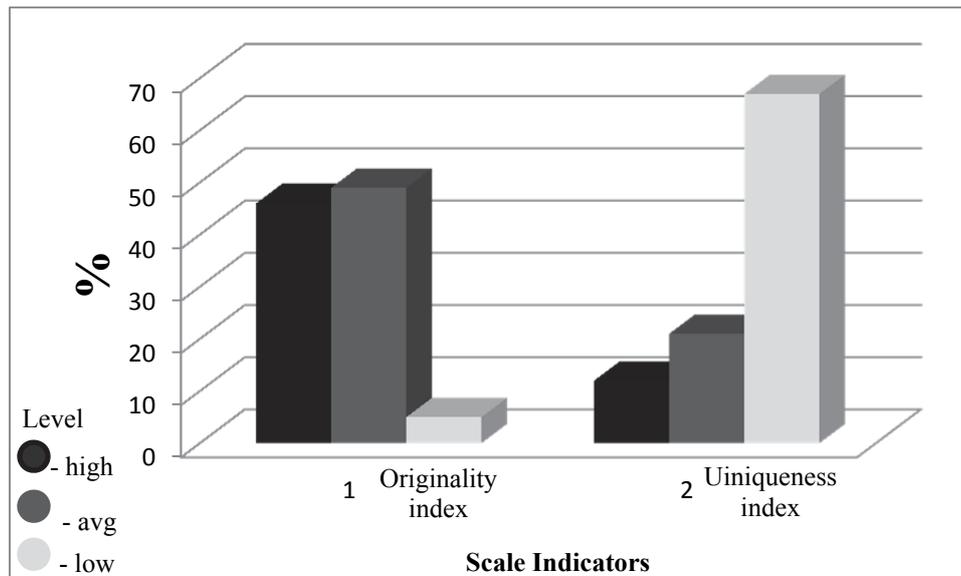


Fig.2. Average indicators of the group studied using S. Mednyk's test method "Diagnosis of verbal creativity"

According to the method of "Coping Strategies" y R. Lazarus following results were obtained: confrontation dominates in 53%; distancing dominates in 52%; self-control dominates in 63%; search for social support dominates in 59%; responsibility acceptance dominates in 77%; escape-avoidance dominates in 56%; problem solving planning dominates in 70%; positive reevaluation dominates in 66%.

Results obtained using this methodology show that representatives of the sample are more inclined to choose a strategy for solving stress situations: responsibility acceptance and problem solving planning that indicates recognition of their role in a problem and efforts to change the situation, including analytical approach to problem solution. Results, obtained using this technique, are presented in Fig. 3.

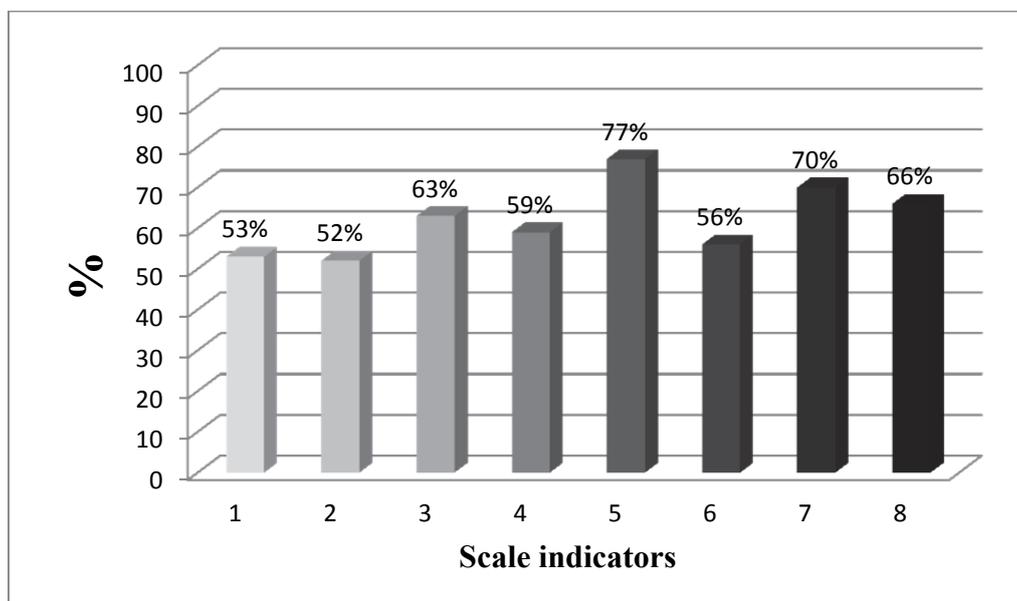


Fig.3. Average indicators of the group studied using questionnaire «Coping strategies» by R. Lazarus

Note: 1. Confrontation; 2. Distancing; 3. Self-control; 4. Search for social support; 5. Responsibility acceptance; 6. Escape-avoidance; 7. Problem solving planning; 8. Positive reevaluation.

According to "Psychological Stress Scale PSM-25" method, the following results were obtained: low stress level dominates in 70%; average stress level dominates in 16%; high stress level dominates in 14%.

Results obtained using this technique show that low stress level dominates among sample representatives. Results, obtained using this technique, are shown in Fig.4.

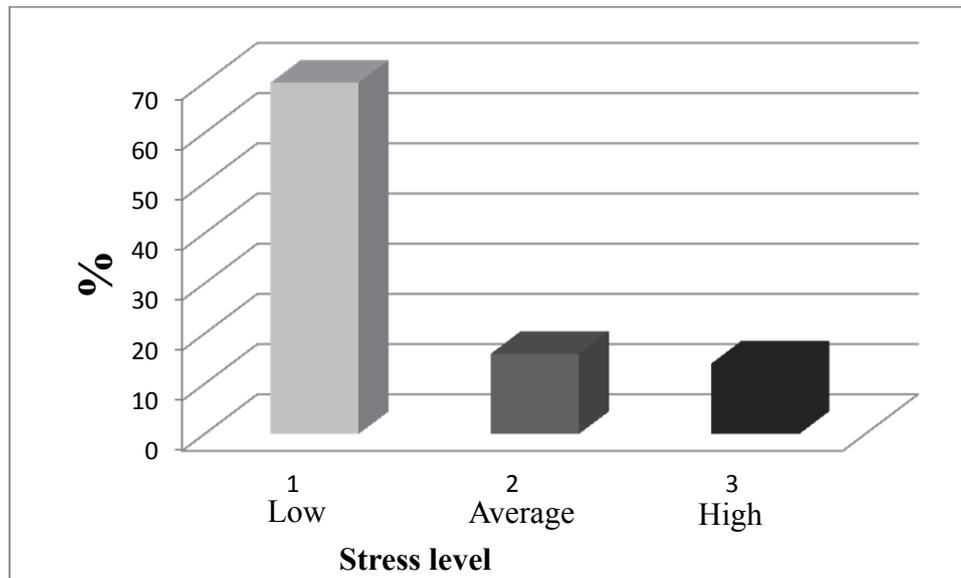


Fig.4. Average indicators of the group studied using «Psychological Stress Scale PSM-25» method

According to "Questionnaire for determining the inclination to stress" (Nemchinov and Taylor) methodology the following results were obtained: high level of stress resistance dominates in 33%; average level of stress resistance dominates in 42%; eustress dominates in 20%; distress dominates in 5%.

Results obtained using this methodology show that average level of stress resistance dominates among sample representatives. Results, obtained using this technique, are shown in Fig.5.

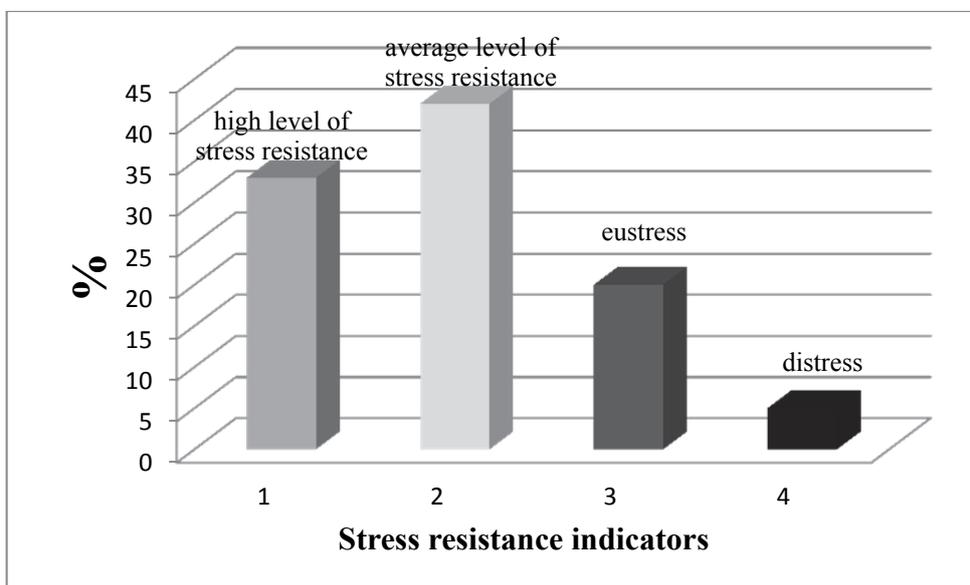


Fig.5. Average indicators of the group studied using "Questionnaire for determining the inclination to stress" methodology

To calculate correlations Pearson correlation coefficient was used. The following results of correlation research were obtained:

- Negative correlation between productivity of non-verbal creativity and coping strategies, aimed at responsibility acceptance, indicators ($r = -0,390^{**}$; $p < 0,01$). The more people will recognize errors and their role in a problem, the less likely they will generate plenty of ideas for solving life

situations, and vice versa, without taking responsibility while solving a particular problem, people are more productive when creating various ideas.

- Negative correlation between productivity of non-verbal creativity and stress development predisposition indicators. People, who have distress predisposition that appears on a background of prolonged or severe effects on organism, will not be able to find a large number of ideas for decision making in the circumstances facing them. On the contrary, people, able to withstand psychological overload, to resist stressful situations, are capable of generating a large number of diverse ideas.
- Negative correlation between verbal creativity originality indicator and stress management strategy that manifests itself in problem solving planning ($r = -0,380^*$; $p < 0,05$). The more people concentrate their efforts to change situations that arise, begin to find possible solutions of problem that emerge, the less original will be their ideas of changing these situations. On the contrary, the less people will plan and think over problem solution, the more unique and original way out of situation they could find.
- Negative correlation between verbal creativity uniqueness indicator and coping strategy, aimed at search for social support. People, who will often direct their efforts to find support from surroundings, will rarely put forward unique and unobvious ideas. People who rely on themselves solving problems, do not need help and advice from others, often bring out unique ideas, without resorting to imitation of previously created.

Conclusions and perspectives of further research

As a result of the research, we have found that creativity is individual's ability to think and act not standard, in line with the goals set, to find original ideas and solutions not only in creative activities, but also in other spheres of life.

It was found that behavior that aims to eliminate or avoid threat and to change the stressful situation is regarded as active coping behavior. Passive coping behavior is aimed at removing the stimulus before situation change.

We found a negative correlation between non-verbal creativity indicator and coping strategy aimed at responsibility accepting, a negative correlation between non-verbal creativity productivity indicator and stress development predisposition, a negative correlation between verbal creativity originality indicator and coping strategy that manifests itself in problem solution planning, a negative correlation between the verbal creativity uniqueness indicator and coping strategy, aimed at search for social support. That is, creativity to a certain extent may be related to individual behavior peculiarities in stressful situations.

Problem of interrelationship between creativity and individual behavior peculiarities in stressful situations do not within the range of issues discussed in this article. Prospective areas of further research could be deepening of theoretical and empirical data about this topic, namely studying factors that contribute to raising the level of individual creativity.

Creation of correction-development program aimed at raising the level of individual creativity and stress resistance could be highly prospective. Psychological exercises, tasks, aimed at creativity skills forming and developing could be one of possible ways out of a stressful situation.

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