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# The essence of students' vitality in the context of its reflexive determination

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## ABSTRACT

**Aim:** Theoretical analysis of the problem of the individual's vitality in the context of its reflective determination, an empirical study of the formation of its components, and the proof of correlations with various types of reflection.

**Materials and Methods:** The following psychodiagnostic methods were used in the empirical study: "Methodology of vitality diagnosis" by S. Maddi in an adaptation by D. Leontiev; test for determining the reflection of interpersonal interaction T. Pushkar in the modification of N. Senchyna; the method of research of reflexivity of thinking (T. Pashukova, A. Dopira, G. Dyakonov); the technique "Determining the level of reflection" (O. Anisimov); method "Determining the level of reflexivity" (A. Karpov, V. Ponomaryova).

**Results:** It was established that the majority of students in both the first and fourth years have an average and low level of vitality. Vitality is directly connected to intellectual, personal, and situational reflection on a temporal basis; that is, the specified types of reflection are the leading determinants of vitality, which is statistically proven.

**Conclusions:** The study showed the high importance of resilience for the full functioning of student youth in modern complex life conditions and its determination by the level of development of various types of reflection.

**KEY WORDS:** vitality, reflection, types of reflection, reflexive determination

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## INTRODUCTION

The problem of the viability of the individual has become extremely urgent in the transgressiveness and fluidity of modern society in martial law conditions in Ukraine. Essential features of Ukrainian society have become danger, various risks and threats (being in the zone of military operations and storage facilities, forced displacement), and the psychological state of the population, in particular, Ukrainian youth – frustration, deprivation, anxiety, fear, general neuroticism, depression. These destructive factors objectively determined negative deviations from the usual way of life, changes in priorities, and accents. They reinforced the need to develop and strengthen such a core personality construct as resilience.

The origins of "sustainability" are related to existential psychology. According to its well-known representatives (S. Maddi, S. Kobeis, P. Tillich), all life events result

from decision-making, regardless of whether they are significant or insignificant, conscious or unconscious [1]. S. Kobeis and S. Maddi introduced the concept of viability into scientific circulation [2]. At the same time, S. Maddi interprets sustainability as a particular system and develops a model within which he considers sustainability as an essential internal resource (setting) that a person can understand and change to support his physical, mental, and social health [3]. That is, S. Maddi interprets the phenomenon of resilience as a unique structure of attitudes and skills, which makes it possible to turn changes into opportunities, reflecting a person's psychological vitality and enhanced effectiveness associated with his motivation to overcome stressful life situations [4].

In modern science, a variety of interpretations of resilience appears, namely: as the leading resource for overcoming life's difficulties, as a person's ability to

control life events and manage them, to perceive difficulties as a valuable experience and successfully cope with them, using them as an opportunity for personal growth [ 5, 6]; as an integral quality of a person, which is based on active life attitudes, is accompanied by the ability to achieve a goal, ensures self-determination and internal balance, contributes to the disclosure of resource potential and becomes a leading condition for full-fledged development [7, 8]; as the ability to effectively exist despite life's obstacles and difficulties, a person's ability to maintain a balance between adaptation to new requirements and the desire to live harmoniously and fully [9, 10]. So, resilience is a particular personality resource that provides control, overcoming life's difficulties, and the desire to live fully in crises thanks to internal balance, self-regulation, and self-determination.

Based on the analysis of the works of the founders of the sustainability problem (S. Maddi, S. Kobeis), as well as modern researchers (T. Larina, V. Predko, T. Tytarenko, O. Chykhantsova, etc.), we single out such characteristics as value-meaning regulation, developed willpower, social competence, development of cognitive structures, adequate self-esteem, resistance to frustration, ability to maintain life balance and harmony.

Sharing the position of S. Kobeis and S. Maddi [11], in the structure of sustainability, we single out *involvement* (commitment), which synthesizes a valuable and meaningful attitude to oneself and the surrounding world, to interaction with "others"; which motivates a person to self-realization, leadership and full-fledged life in stressful crisis conditions; *control*, which involves activity in the search for ways to influence and get out of crisis life situations, control over circumstances as opposed to anxiety, a state of helplessness and passivity; *acceptance of risk* (challenge), which is based on the idea of development through overcoming risks, on the individual's perception of life events and problems as a challenge and test.

It is worth paying attention to the aspect of the study related to various determinants and correlates of viability. There are scientific hypotheses regarding correlations of vitality, namely: 1) with properties of the nervous system and individual psychological characteristics of the personality (T. Vasheka, O. Lych, B. Palamar, S. Palamar, V. Zhelanova, T. Safir, N. Kurdil) [12]; 2) with personal values (O. Chikhantsova) [13]; 3) on the emotionality of the individual (T. Ulyanova) [14]; 4) with somatic diseases (L. Serdyuk, O. Kupreeva) [15].

The presented study emphasizes the reflexive determination of sustainability and states that the structure of sustainability proposed by S. Kobeis and S. Maddi has obvious reflexive origins.

Concentrating on the reflective aspects of sustainability, we note that we interpret the phenomenon of reflection as a complex, multifunctional, interdisciplinary construct, which is an individual's appeal to himself (to his consciousness, thinking, results of activities, to the perception of himself through the eyes of other people), which appears in the context of reflective consciousness, reflective thinking, reflective activity, reflective communication as a synthetic reality, which is a process, property, and state [16].

At the same time, reflection contains a cognitive component – self-understanding; an affective component – an attitude towards oneself; behavioral – self-regulation of individual behavior; and socio-perceptive – a basis for adequate perception and understanding of others. Therefore, reflection performs the functions of understanding, self-knowledge, a form of theoretical activity, a principle of thinking, a category of consciousness, and the basis of communication and perception.

Reflexive determination of involvement as a component of sustainability is related to awareness of one's hierarchy of values, its dynamics, and reorientation in difficult life conditions, with an analysis of one's behavior in crisis conditions. These reflective processes are provided through personal, retrospective, and situational reflection. This component of vitality, which reflects a valuable attitude towards other people, is realized in communicative and situational reflection, which allows one to understand another and form the need to empathize with him. Setting up for a full-fledged life in crisis conditions is associated with personal, intellectual, and perspective reflection. Since the installation is characterized by stability and orientation towards the future. Control, as an aspect of sustainability, is associated with personal, intellectual, situational, and perspective reflection, which leads to awareness of one's activity in the search for ways out of a crisis; knowledge about the inner world of another person, knowledge about awareness of the attitude of others towards oneself (communicative reflection); knowledge about the organization and positions of group interaction participants (cooperative reflection). Acceptance of risk is based on types of reflection aimed at "self" (intellectual, personal) and on perspective reflection associated with reflexive-anticipatory processes.

## AIM

The purpose of the study was to carry out a theoretical analysis of the phenomena of sustainability and reflection, as well as substantiation and experimental verification of the reflexive determination of sustainability. To achieve the goal and the hypothesis of a direct

**Table 1.** Distribution of respondents by the level of sustainability components, in %

Levels Components	1 <sup>st</sup> year						4 <sup>th</sup> year					
	High		Average		Low		High		Average		Low	
	%	Absol.	%	Absol.	%	Absol.	%	Absol.	%	Absol.	%	Absol.
Vitality	12,12	8	51,52	34	36,36	24	19,35	12	58,07	36	22,58	14
Involvement	10,61	7	54,54	36	34,85	23	19,35	12	50,00	31	30,65	19
Control	12,12	8	51,52	34	36,36	24	16,13	10	58,06	36	25,81	16
Acceptance of risk	30,30	20	48,49	32	21,21	14	35,48	22	43,55	27	20,97	13

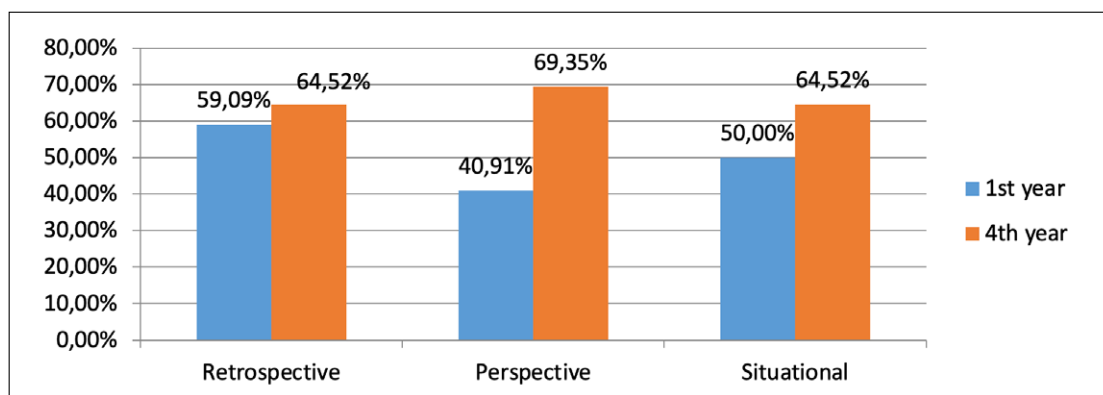
**Table 2.** Distribution of respondents by levels of reflection types, in %

Level	Scale	Intellectual	Cooperative	Personal	Communicative	
Low	1 <sup>st</sup> year	%	33,33	6,06	10,60	15,15
		Absol.	22	4	7	10
	4 <sup>th</sup> year	%	20,97	1,61	3,23	9,68
		Absol.	13	1	2	6
Below average	1 <sup>st</sup> year	%	-	33,33	21,21	-
		Absol.	-	22	14	-
	4 <sup>th</sup> year	%	-	11,29	14,52	-
		Absol.	-	7	9	-
Average	1 <sup>st</sup> year	%	56,06	34,85	62,12	54,55
		Absol.	37	23	41	36
	4 <sup>th</sup> year	%	54,84	53,23	40,32	45,16
		Absol.	34	33	25	28
Above average	1 <sup>st</sup> year	%	-	9,09	1,52	-
		Absol.	-	6	1	-
	4 <sup>th</sup> year	%	-	12,90	19,35	-
		Absol.	-	8	12	-
High	1 <sup>st</sup> year	%	10,61	16,67	4,55	30,30
		Absol.	7	11	3	20
	4 <sup>th</sup> year	%	24,19	20,97	22,58	45,16
		Absol.	15	13	14	28

**Table 3.** Significant correlations of vitality with types of reflection in students

	Viability	Involvement	Control	Risk Acceptance
Methodology for the study of reflexivity of thinking (T. Pashukova)				
Intellectual reflection	0,621**	0,252*	0,548**	0,457**
Method "Determining the level of reflection" (O. Anisimov)				
Personal reflection	0,534**	0,465**	0,453**	0,221*
Cooperative reflection	0,271*	-	0,343**	-
Test for determining the reflection of interpersonal interaction T. Pushkar in the modification of N. G. Senchyna				
Communicative reflection	0,381**	0,222*	0,342**	-
Methodology "Determining the level of reflexivity" (A. Karpov, V. Ponomareva)				
Retrospective reflection	0,226*	0,365**	-	-
Situational reflection	0,514**	0,476**	0,481**	-
Perspective reflection	0,426**	-	0,463**	0,232*

Notes: \* – correlation is significant at  $p < 0,05$ \*\* – correlation is significant at  $p < 0,01$ .



**Fig. 1.** Histogram of the distribution of the formation of types of reflection by time among first- and fourth-year students, in %.

connection between the types of reflection and the levels of resilience, the following research tasks were identified: to diagnose the level of resilience and its components among students during the war; diagnose the level of formation of various types of reflection and establish their correlations with vitality.

## MATERIALS AND METHODS

The peculiarity of our sample lies in the fact that it consists of students of the first (bachelor) level of higher education under the educational programs 012.00.01 "Preschool Education" and 013.00.01 "Primary Education" of Borys Grinchenko Kyiv University and Luhansk National University named after Taras Shevchenko, located in Lubny, Poltavaska Oblast.

The study was conducted over six months (from September 2023 to February 2024). The sample consisted of 128 students in the 1st and 4th years, with an average age of 19.5 years; 1st year – 66 people, 4th year – 62 people. These were students traumatized by rocket fire and forced displacement, as well as education in between air raids or in a bomb shelter. Such objective circumstances of modern life require a certain balance of internal resources and vitality and artificially created danger.

The following diagnostic toolkit was used in the research: "Methodology of vitality diagnosis" by S. Maddi in the adaptation of D. Leontiev (to study the level of vitality and the development of certain of its components); the test for determining the reflection of interpersonal interaction by T. Pushkar in the modification of N. Senchyna (to research communicative reflection); the method of research of reflexivity of thinking (T. Pashukova, A. Dopira, G. Dyakonov) (to determine intellectual reflection); the method "Determining the level of reflection" (O. Anisimov) (the goal is diagnosis of personal and cooperative types of reflection); the method "Determining the level of reflexivity" (A. Karpov, V. Ponomaryova) (the purpose of determining retrospective, situational and perspective reflection).

In order to analyze the data obtained, we distributed

the respondents by the levels of formation of the studied indicators (in %), using MS Excel for calculation. To establish the correlation between resilience and reflexivity of the respondents, we used correlation analysis, namely Pearson's parametric correlation coefficient, which was calculated using the SPSS Statistics 27 statistical software package. Statistical analysis allowed us to identify relationships between indicators at the significance level of 0.05 and 0.01 (at  $p < .01$  and  $p < .05$ ).

The researchers followed all protocols and procedures required by the Biomedical research Ethics Committee and conform to the directive of the Ukrainian Legislation on health care, Helsinki Declaration 2000 and European Society Directive 86/609 on human participation in biomedical research to ensure adherence to all standards for adequate protection and well-being of participants.

## RESULTS

According to the results of the vitality diagnosis of first- and fourth-year students (Table 1), only 12.12% of first-year students and 19.35% of fourth-year students have a high level of vitality. 51.52% of first-year and 58.07% of fourth-year students have an average level. A low level was diagnosed in 36.36% of first-year students and 22.58% of fourth-year students.

Regarding specific components of vitality, the following results were obtained: a high level of involvement is observed in 10.61% of first-year students and 19.35% of fourth-year students, an average level – in 54.54% of first-year students and 50.00% of fourth-year students, a low level - 34.85% of first-year students and 30.65% of fourth-year students. Control at a high level was found in 12.12% of first-year students and 16.13% of fourth-year students, at an average level - in 51.52% of first-year students and 58.06% of fourth-year students, and a low level was observed in 36.36% of first-year students and 25.81% of the fourth.

The analysis of the obtained data allows us to conclude that among the students, the most pronounced component of resilience was diagnosed as "risk-taking": 30.30% of first-year students and 35.48% of fourth-



year students were diagnosed with a high level, while 48.49% of first-year students had an average level, and 43.55% of the fourth year, and low - in 21.21% of first-year students and 20.97% of fourth-year students.

The results of the distribution of respondents by levels of reflection types are shown in Table 2.

According to the scale of *intellectual reflection*, the following data were obtained: a low level was found in 33.33% of first-year students and 20.97% of fourth-year students, an average level was diagnosed in 56.06% of first-year students and 54.84% of fourth-year students, and a high level was observed in 10.61% of first-year students and 24.19% of fourth-year students. The average level of intellectual reflection prevails among students, but the indicators are somewhat higher among students in the fourth year.

The data obtained according to the scale of cooperative reflection show that 6.06% of first-year students and 1.61% of fourth-year students have a low level of cooperative reflection, and 33.33% of first-year students and 11.29% of fourth-year students have a below-average level, 34.85% of first-year students and 53.23% of fourth-year students were diagnosed with an average level of development of cooperative reflection, an above-average level was found in 9.09% of first-year students and 12.90% of fourth-year students. A high formation of cooperative reflection is observed in 16.67% of first-year students and 20.97% of fourth-year students. So, in the group of fourth-year students, the indicators of cooperative reflection exceed those of first-year students. So, the average and below-average levels prevail among first-year students, and the average level tends to increase among fourth-year students.

The analysis of the results of the *personal reflection* study allows us to draw the following conclusions: a low level is observed in 10.60% of first-year students and 3.23% of fourth-year students, a below-average level was found in 21.21% of first-year students and 14.52% of the fourth year, an average level of development of personal reflection was diagnosed in 62.12% of first-year students and 40.32% of fourth-year students, an above-average level was found in 1.52% of first-year students and 19.35% of fourth-year students, a high level of development of personal reflection was found 4.55% of first-year students and 22.58% of fourth-year students. Therefore, the average level of personal reflection with a downward trend prevails among first-year students, while the average level with an upward trend prevails among fourth-year students.

Among first-year students, a low level of communicative reflection is observed in 15.15%, among representatives of the fourth year in 9.68%, in 54.55% of first-year respondents and 45.16% of fourth-year respondents, an

average level of communicative reflection development was diagnosed, a high level was found 30.30% of first-year students and 45.16% of fourth-year students. Thus, among students of both the first and fourth years, the lowest results are observed on the scale of intellectual reflection. However, the level of philosophical reflection formation is higher among the representatives of the fourth year than among the students of the first year. According to other scales, there is also a difference between the courses; the results of the fourth-year students slightly exaggerate the results of the first-year students.

The results of the distribution of the formation of types of reflexivity by time, namely retrospective, situational and prospective, are graphically shown in Fig. 1.

The given data indicate that retrospective reflection is manifested in 59.09% of first-year students and 64.52% of fourth-year students; perspective reflection – in 40.91% of first-year students and 69.35% of fourth-year students; and situational reflection – in 50.00% of first-year students and 64.52% of fourth-year students. Thus, we can state that retrospective reflection is a priority for first-year students, while prospective reflection prevails among representatives of the fourth year; that is, reflection is responsible for analyzing their future activities.

The results of the correlation analysis shown in Table 3 indicate the presence of a close connection between intellectual reflection and vitality ( $r = 0.621$  at  $p < 0.01$ ), involvement ( $r = 0.252$  at  $p < 0.05$ ), control ( $r = 0.548$  at  $p < 0.01$ ) and risk-taking ( $r = 0.457$  at  $p < 0.01$ ). Thus, the higher the indicators of intellectual reflection, the higher the vitality indicators.

It was established the presence of a direct relationship at a high level of statistical relationship of personal reflection with vitality ( $r = 0.534$  at  $p < 0.01$ ), involvement ( $r = 0.465$  at  $p < 0.01$ ), control ( $r = 0.453$  at  $p < 0.01$ ) and moderate risk taking ( $r = 0.221$  at  $p < 0.05$ ) at a reliable level. Cooperative reflection is related to control ( $r = 0.343$  at  $p < 0.01$ ) and vitality ( $r = 0.271$  at  $p < 0.05$ ); that is, a direct relationship was found at a high and reliable level, so knowledge about the organization and the positions of participants in group interaction affects the increase in the level of vitality, in its control component.

It should be noted that there is a direct relationship at a high level of significance of communicative reflection with vitality ( $r = 0.381$  at  $p < 0.01$ ), control ( $r = 0.342$  at  $p < 0.01$ ), and at a reliable level of significance with involvement ( $r = 0.222$  at  $p < 0.05$ ). Therefore, knowledge about awareness of the attitude of others towards oneself and valuable attitude towards other people in the process of communicative reflection, which allows one to understand another and form the need to empathize with him, affects the increase in the level of involvement, control, and vitality in general.

Regarding reflection in the time dimension, we can see the following results: a direct relationship between retrospective reflection and vitality ( $r = 0.226$  at  $p < 0.05$ ) and involvement ( $r = 0.365$  at  $p < 0.01$ ) was found. Situational reflection is directly correlated with resilience ( $r = 0.514$  at  $p < 0.01$ ), involvement ( $r = 0.476$  at  $p < 0.01$ ), and control ( $r = 0.481$  at  $p < 0.01$ ). Prospective reflection with resilience ( $r = 0.426$  at  $p < 0.01$ ), control ( $r = 0.463$  at  $p < 0.01$ ) and risk taking ( $r = 0.232$  at  $p < 0.01$ ). That is, the presence of prospective reflection among the respondents affects the increase in the level of such a component of sustainability as "Risk Acceptance". In students with pronounced situational reflection, the components "Involvement" and "Control" prevail, while the dominance of retrospective reflection is associated with increased involvement.

## DISCUSSION

Each of the components of the sustainability model [9], based on which our research was conducted, demonstrates the variability of manifestations due to the expansion of experience in responding and interacting with others and the environment, which can have both positive and negative effects. Since a person is naturally vulnerable, the mechanisms of vitality can act as a buffer, reducing the impact of negative factors on the individual [9].

Among such survival mechanisms, the most valuable is the search for social support, especially in the context of terrorist attacks [13]. However, social support did not reduce the relationship between a stressful event and coping [14]; it is defined as information that makes the subject believe that he is cared for, loved, respected, and is a member of a network of mutual obligations [14]. In our study, the scale "seeking social support" directly correlates with the component "involvement". Evidence that supportive interpersonal interactions protect against the health effects of life stress is reviewed [15].

These facts testify in favor of the correct actions of the Ukrainian government regarding the organization of social awareness of the behavior of adults and children in the event of danger (for example, about the location of bomb shelters, safe places in the house, about places of humanitarian and medical aid, about centers of "invincibility", about places with, first aid courses, etc.) through mass media, chatbots, SMS messages, even when the Internet is not working, which in the complex can be called elements of the "culture of survival". The importance of such a culture, in conditions of limited time for cognitive processing of information for making the right decisions, prevents the effect of "freezing" [16].






We consider resilience as a personal characteristic, the foundation of whose strength is connected with the peculiarities of the nervous system, the ability to respond constructively to difficult life circumstances using appropriate coping strategies, which confirm the results of the correlation analysis. The constancy of resilience as a personality trait that exists regardless of time and types of adversity has been proven in studies involving student youth.

## CONCLUSIONS

Thus, the most pronounced component of vitality was diagnosed as "aspiration to risk"; involvement and control were formed at the average level. Reflection turned out to be a significant determinant of students' vitality. The leading factors of high vitality of students are the formation of various types of reflection: by direction (intellectual and personal; cooperative and communicative) and by time (situational, retrospective, and prospective). Considering the interpretation of the correlation coefficients, we can conclude that a high positive relationship was found between resilience and intellectual reflection, personal reflection, and situational reflection; the specified types of reflection are the leading determinants of resilience, which is statistically proven.

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## CONFLICT OF INTEREST































The Authors declare no conflict of interest

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