

Sensory Regulation of Future Teachers in a Situation of Uncertainty

Regulación Sensorial de los Futuros Pedagogos en una Situación de Incertidumbre

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ABSTRACT:

The aim is an empirical study of the sensory regulation of future teachers in a situation of uncertainty ($n=153$). A Four-factor structure of sensory regulation (67.139%) was formed: F1, "Value-sensory evaluation of the situation" (31.774%), F2, "Super situationality of evaluation" (18.936%), F3, "Reducing the emotional situation" (9.536%) and F4, "Positive understanding of the situation" (6.893%). Understanding the structure of sensory regulation will help future teachers to control their mental state in a situation of uncertainty.

Keywords: Values, sense-making, self-regulation, teachers.

RESUMEN:

El objetivo es realizar el estudio empírico de la regulación sensorial de los futuros pedagogos en una situación de incertidumbre ($n = 153$). Se ha construido la estructura de cuatro factores de la regulación sensorial (67.139%): F1, "Evaluación sensorial valorativa de la situación" (31.774%), F2, "Evaluación de carácter ultrasituacional" (18.936%), F3, "Reducción de la situación emocional" (9.536%) y F4, "Comprensión positiva de la situación" (6.893%). Comprender la estructura de la regulación sensorial ayudará a los futuros pedagogos a regular su estado de ánimo en una situación de incertidumbre.

Palabras clave: Valores, formación de sentido, autorregulación, pedagogos

1. Introduction

The individual's ability to overcome life's difficulties determines the capability of the personality to stand above the situation and be an active subject in his/her lives. We face uncertainty situations as a difficulty. Difficulties prompt the individual to rethink the situation, to revalue the significance of events in the context of life perspective and his living space. Difficulties contribute to overcoming negative experiences and maintain the vitality of the individual in a situation of uncertainty. This can be done on the basis of personal values-formations, which many scholars consider as a mechanism of self-regulation.

The study of self-regulation in the psychology-related sciences, especially in philosophical, physiological and psychophysiological studies, was essential for understanding human activity and behavior. In the psychological sciences it determined the emergence of self-regulation as an independent object of research.

Considering the ambiguity of the phenomenon of self-regulation, there is different interpretation of it in psychological science in the literature review. Much attention is paid to the applied aspects of understanding self-regulation. The role of self-regulation in initiating and supporting behavioral changes has been studied (Rothman et al., 2004). The correlation of the emotional component to self-regulation, based on the concept of the feedback chain, has been established (Carver, 2004). Self-regulation of activity is researched and interpreted as the purpose of the main component of self-regulation (Kuhl, 1987).

In theoretical and methodological terms, it is important to study sensory self-regulation in a systematic approach.

From the position of structural and functional approach, the functions of self-regulation and its management have been researched. Self-regulation is considered as a structured phenomenon. It is substantiated that understanding of structure and influence on individual components makes it possible to form self-regulation of the personality (Konopkin, 2012; Morosanova & Aronova, 2007).

From the position of the cognitive approach, self-regulation has been studied as the consciousness and self-consciousness of the personality and it has been determined that reflexion is means of self-regulatory process (Boiarintsev, 1986). Other studies have found that the activity of the subject is basic and the object of self-regulation is confronted with realized kinds and forms of arbitrary activity from the individual (Boryshevskiy, 2012; Konopkin, 2012). From the position of a personal approach, it is determined that regulatory-personal properties of individual's personality are basic in explaining his/her self-regulation (Morosanova & Aronova, 2007; Osnitskii, 2001).

From the position of a sensory approach, self-regulation has been examined as a regulatory function of consciousness, which is provided by value-sensory orientations (Bratus, 1999; Leontyev, 2003; Seryi & Ianitskii, 2015). Value-sensory self-regulation is studied as purposeful, realized process of self-organization, self-management and self-control of value self-changes, which through the formed sensory construct have ensured the dynamics of value-sensory formation of the personality (Halian, 2016). Viktor Frankl, under the sensory regulation of behavior, understands the search and acceptance of the meaning of life, which should be imbued with any life event (Frankl, 2006).

Sensory regulation is actualized in situations of uncertainty as it is aimed at transforming the common sensory structures, the formation of new principal values that form the basis of whole human life activity. The situation of uncertainty under specific conditions promotes personal development. According to F. Vasiliuk (1997), one of such conditions is the transformation of emotional (negative) experience into experience, as an activity to reinterpret the situation.

Sensory self-regulation in situations of uncertainty consists in reorganizing the attitude to the problem in the context of its comprehension, based on vital values and meanings. Researchers have found that the key in this process is value choice – an activity that is determined by the experience, activity, and regulatory competence of the personality (Ball, 2010; Halian, 2016). Expanding the context of understanding can be realized by analyzing one's own life scenario, connecting new sensory contexts.

A necessary condition for realized sensory adjustment is reflexion. There is internal transformation of neutral content into over emotional sense during reflexion (Leontyev & Averina, 2011). This particular internal activity is the action of sense connection that, during the experience, causes the formation of new sensory system.

The analysis of scientific sources demonstrated the state of the problem under study. The sources review helped us to reveal differences in the understanding of the essence of the phenomenon under study by representatives of different scientific approaches. It is interesting to look at self-regulation as an adaptive characteristic that promotes awareness of the problem and adjusts the behavior of the personality to the specific need. Self-regulation is also mobilizing and organizing function that combines efforts to achieve results.

Sensory self-regulation is meaningful for organizing human behavior in a situation of uncertainty. Therefore, it is appropriate to study the peculiarities of its functioning in complicated and uncertain life situations.

Hypothesis: We assume that sensory self-regulation in a situation of uncertainty will be effective, if provided the systematic reflection of one's own life-orientations.

The purpose is to study the psychological special features of the sensory regulation of future teachers in a situation of uncertainty, which is a challenge that future teachers face in their early

2. Materials and Methods

2.1. Participants

For the study we selected 153 students from the second to fourth years of study at Ivan Franko Drobych State Pedagogical University, Kherson State University, and Volodymyr Dahl East Ukrainian National University. They have acquired the following specialties: "Elementary School Teacher", "Teacher of Ukrainian Language and Literature", "Teacher of Physics" and "Teacher of Mathematics". The mean sample age was 20.54 years ($SD = 1.7$, range 18-23 years). 92.81% were women and 7.19% men.

Based on Hollingshead four factor index (Hollingshead, 1975), the participants' families corresponded to the following categories: 10.45% low Familial Socioeconomic-Status (FSS), 21.57% FSS low-medium, 23.53% FSS medium, 27.45% FSS medium-high, 15.69% FSS high. The 1.31% did not provide information.

2.2. Instruments

During the second semester of the 2018-19 academic year, psychodiagnostic methods were used to measure the substantive psychological parameters under study.

"The Morphological Test of Vital Values" ("MTVV") (Sopov & Karpushina, 2002) measured participants' value system in order to understand the meaning of their actions. The basic diagnostic construct of "MTVV" has the following terminal values: *personal development, spiritual satisfaction, creativity, active social contacts, own prestige, high financial position, achievements, and individuality keeping*.

These values are differently realized in the spheres of life: professional, education, family, sphere of social activity, hobbies and physical activity. The test uses Unipolar Semantic Differential Scale. Values which were in the range from 1 – not relevant and up to 7 – very relevant. Reliability indicators obtained, using α -Cronbach's statistics, were: $\alpha_{MTVV} = .798$.

"Purpose in Life Test" ("PIL") (Leontyev, 2006) evaluated the source of future teachers' sense of life, according to the integral scale "Understanding of Life" and a number of subscales: purpose in life (in relation to the future); process of life or interest and emotional saturation of life (in relation to the present); the effectiveness of life or satisfaction with self-realization (in relation to the past); locus of control – Self (I am the master of my own life); locus of control (confidence in the possibility of independent fulfillment of life choices) (Leontyev, 2006). A bipolar semantic differential scale with values from -3 (strongly disagree) to +3 (strongly agree) was applied. Reliability indicators, obtained with α -Cronbach's, were: $\alpha_{PIL} = .765$.

E. Fantalova's method "The Level of Correlation of "value" and "Accessibility" in different spheres of life" ("LCVA") determined the type of sensory system, the basis for which is the difference between the importance of value and its accessibility (Fantalova, 2001). An indicator of such discrepancies shows measure of internal discomfort and, consequently, a blockade of real value-sensory formations. The different meaning of such discrepancies is determined by the type of sensory system. We focused on the norms by the index of difference "Value" – "Accessibility" or ("R"): $M \pm SD$ in men 33.17 ± 1.8 $n = 11$; $M \pm SD$ in women 37.01 ± 1.6 $n = 142$, where M is the arithmetic mean; SD is the mean deviation. The dichotomous scale was used, Cronbach's alpha was $\alpha_{LCVA} = .712$.

The individual features of self-regulation: planning, programming, modeling, autonomy, flexibility, evaluation of the activity results were diagnosed with the help of the questionnaire "Style of Self-regulation of Behavior" ("SSRB") by Morosanova V. The questionnaire determined the overall level of individual system formation of realized self-regulation of arbitrary human activity (Morosanova, 2004). The unipolar semantic differential scale was applied, the values of which ranged from 1 (true) to 4 (incorrect). Reliability indicators, obtained using α -Cronbach's statistics, were: $\alpha_{SSRB} = .868$.

The coping-test "Way of Coping Questionnaire" ("WCQ") (Lazarus & Folkman, 1984; adapted by Kriukova & Kuftiak, 2007) is used to reveal internal mental protective resources through which an individual adapts to new environments or new activity in a situation of uncertainty. The questionnaire contains eight coping strategies presented by such subscales: confrontation (C), distancing (D), self-control (SC), seeking social support (SSS), accepting responsibility (AR), avoidance (A), planning to solve a problem (PSP), positive reestimation (PO).

The unipolar semantic differential scale was applied, with values ranging from 0 (never) to 3 (often). The dichotomous scale was used, Cronbach's alpha was $\alpha_{WCQ} = .882$.

"The Differential Test of Reflexivity" ("DTR") (Leontyev & Osin, 2014) is used to study reflexion as fundamental mechanism of self-knowledge and self-understanding and to clarify the role of reflexion in the processes of sensory self-regulation. Reflexion is important for understanding oneself in a situation of uncertainty. As part of the empirical study, we have suggested the levels of reflexivity that are presented in Table 1.

Table 1
Mean values and mean-square deviations of reflection levels of future teachers
by "DTR" (n = 153)

Scale	Maximum, Max	Standards according to the methods		Levels of reflection		
		Arithmetic mean, M	Mean- square deviation, SD	Low	Medium	High
Systemic reflection	48	39.58	5.15	<33	34-44	>45
Introspection	36	25.11	5.68	<18	19-31	>32
Quasi-reflection	36	27.39	5.69	<20	21-33	>34

Note: max – maximum; M – arithmetic mean; SD – mean-square deviation.

A dichotomous scale was used, Cronbach's alpha was $\alpha_{DTR} = .782$. The indexes of reliability of the methods used and the tests of Cronbach's alpha were within the levels of, sufficient .7 and high .9.

2.3. Procedure

The research was organized according to the scheme of ascertaining experiment. Due to diagnostic sections, psychological content parameters were determined. The participation of individuals in the study was voluntarily. The confidentiality of the information was emphasized, so honest responses were asked. This helped to avoid random responses.

The types of sensory systems were used to analyze the results of the research: coordinated, uncoordinated and mixed, distinguished in the study of sensory creation of special features within future teachers (Halian, 2017; 2018). In this typology, the key parameters are the importance of value and its accessibility (Fantalova, 2001).

Since non-coordination is evidence of the presence of multiple processes in the value system, we believe that this non-coordination makes some sense for the individual. Interacting, the parameters of the importance of value and its accessibility form the semantic and dynamic components of sensory self-regulation, where the semantic side of sensory self-regulation is represented by the system of values (its hierarchy), and dynamic – the discrepancy between the existential expectations of the personality and the awareness of the possibility of their satisfaction, i.e. realization (Popovych, 2017; 2019; Popovych & Blynova, 2019).

As a consequence, individuals with coordinated type of sensory system are characterized by high correlation coefficients between indicators of importance and accessibility of value ($I \uparrow A \uparrow$) ($r = .81, p \leq .05$) and very low – between the importance of value and the indicator of difference in value and accessibility ($I \neq (I - A)$) ($r = .2$). There is no direct correlation between the importance of value and its accessibility within individuals with uncoordinated type of sensory creation ($I \uparrow A \downarrow$) ($r = -.25$), but there is direct correlation between the importance of value and the difference of importance and accessibility ($I \uparrow (I - A) \uparrow$) ($r = .8$, at $p \leq .01$). The sensory creation system of mixed type bearers contains elements of coordination and non-coordination in the system of values. That is, with the rise / fall of value accessibility ($I \uparrow A \uparrow$), the difference between them ($I \uparrow (I - A) \uparrow$) increases / decreases.

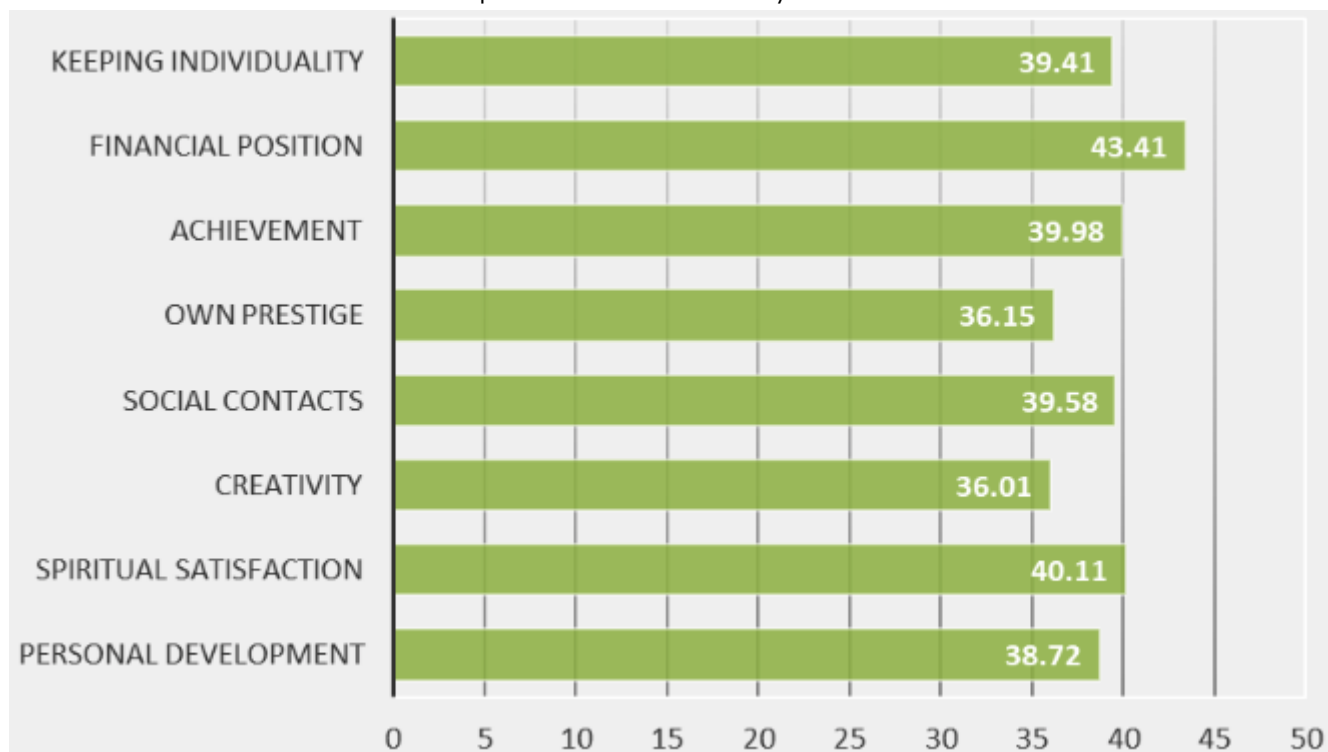
2.4. Data Analysis

Statistical processing of the empirical data and graphical presentation of the results were performed using the statistical programs "SPSS" v. 23.0 and "MS Excel". Correlations are established by the Spearman's rank correlation coefficient (r_s). Arithmetic mean values of maximum (max), parameters (M) and mean-square deviation (SD) were calculated. The verification of the normal distribution parameters was performed by the one-sample Kolmogorov-Smirnov criterion λ . Differences between values of parameters at level $p \leq .05$ are considered statistically significant.

3. Results

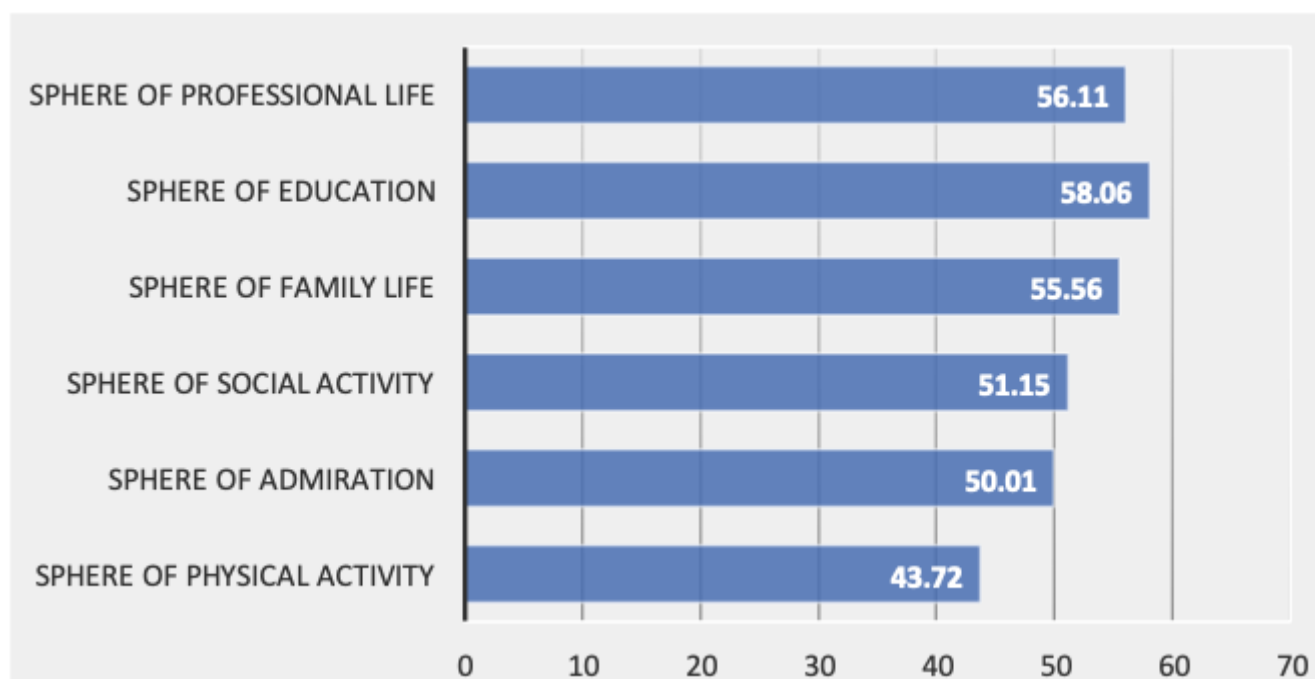
The research is focused on the ascertaining strategy with the identification of types of sensory self-regulation. The content component of the values system and meanings that directly regulate behavior in the situation of uncertainty is researched. The leading place in the system of values of future teachers is the desire to increase the level of financial position (range of high values), spiritual satisfaction and achievements (Fig. 1).

Figure 1
Life values in the structure of the value-sensory
sphere of future teachers by "MTVV"



Establishing positive relationships with people, accepting the views and attitudes of others is important. Somewhat lower in the hierarchy of values with a range of medium meanings is the desire for realization of creative abilities and interest in one's own prestige. Satisfaction with all spheres of life is stated. However, the highest scores were obtained in the spheres of education, professional activity and family life (Fig. 2). And the spheres of admiration, socio-political life, physical activity and culture gain medium scores.

Figure 2
The importance of different life
spheres for future teachers by "MTVV"



We consider such distribution of priorities in the system of students' values naturally determined, since their life is filled with educational activities, professional formation, and preparation for family life.

The level of development of sensory-life orientations in future teachers "Purpose in Life Test" ("PIL") (Leontyev, 2006), is quite high. Each orientation received a score in the range of 73-77 (from the maximum possible) on a scale of 100 scores. The content analysis of indicators of sensory-life orientations showed their purposefulness, interest in life, ability to evaluate the lived part of life as productive and meaningful. The desire to control the events of life, as well as their structuring in accordance with the set goals and sensory ideas, is stated. High level of overall awareness of life is acknowledged.

The subject's ability to regulate his/her own mental states helps to manage the situation of uncertainty. This consideration leads to the separation of the structure of the self-regulatory process. For this purpose, we used the procedure of factor analysis (with Varimax rotation) of scale indicators of all the methods used: "MTVV", "PIL", "LCVA", "SSRB", "WCQ", "DTR", which served as components of sensory self-regulation (Tabl. 2).

Table 2
Factor structure of sensory
self-regulation of future teachers

Parameters	Factors			
	Value-sensory evaluation of the situation	Supersituationality of evaluation	Reducing the emotional situation	Positive understanding of the situation
Sphere of professional life	.876			
Sphere of education	.883			
Creativity	.801			
Sphere of	.791			

public activity				
Spiritual pleasure	.773			
Sphere of family life	.734			
Changing activities, doing your favorite thing		.891		
Distraction, intentionally switching attention to neutral object		.875		
Relaxation		.769		
Seeking help		.488	.431	.430
Duration of the situation experience			.789	
Anxiety, fear			.784	
Feeling of guilt			.742	
Positive revaluation				.737
Strength and activity intensification				.712
Active actions to overcome the situation				.561

Note: The loadings of the significant variables are given in bold type.

Factor 1 "Value-sensory evaluation of the situation", which explains 31.774% of the variances, sensory self-regulation for future teachers is not spontaneous but balanced. Decisions are made to analyze life events and their consequent effects for vital growth.

Factor 2 "Supersituationality of evaluation" explains 18.936% of the variances, attests to this tendency of sensory self-regulation: the less future teachers are interested in information about the situation, the less is the level of irritation and aggression, the more acceptable for them is super situational understanding of the situation of uncertainty.

Factor 3 "Reducing the emotional situation" explains 9.536% of the variances. The content of the components that make up the factor testify to the internal concern of future teachers, caused by the continuance of the situation experiencing, which gives rise to anxiety, fear, while forming feeling of guilt.

Factor 4 "Positive understanding of the situation" explains 6.893% of the variances. Components with dominant loadings, that form this factor, focus on the personal development of future

teachers, finding solutions to the problem. Sensory regulation is carried out in a state of intensification of personal strength and resources. The following factors have loadings beyond the cumulative variances of the variables (less than .976). According to the results of the statistical analysis, four main factors (67.139%) were presented, which determined the factor structure of the sensory self-regulation of future teachers.

The next logical step in our empirical study is to establish the levels of reflexion of future teachers. Reflexion is the result of conception of one's life, as well as fundamental mechanism of self-knowledge and self-understanding. The purpose was to clarify the mechanisms of building sensory life beliefs of future teachers, which is extremely necessary for the situation of uncertainty. The results obtained by the method "Differential Test of Reflexivity" ("DTR") (Leontyev & Osin, 2014) became fundamental for the analysis.

The basis is based on the types of reflexion formed by different correlation of consciousness orientation: on oneself and on the external situation: systemic reflexion (simultaneous view of oneself and external situation (self-distancing, view from the side)), introspection (focus on oneself), areflexia (focus on external intentional object), quasi-reflexion (absence of any orientation).

Low level of systemic reflexion and medium level of introspection and quasi-reflection within future teachers were stated. It was established that the quasi-reflexion indicators are higher than medium level values but lower than the high level indicators (Tabl. 3).

Table 3
Levels of reflective activity
of future teachers by "DTR"

Scale	Levels of reflection			Empirical means obtained	
	Low	Medium	High	Arithmetic mean, M	Level
Systemic reflection	<33	34-44	>45	31.3	Low
Introspection	<18	19-31	>32	27.6	Medium
Quasi-reflection	<20	21-33	>34	31.1	Medium

Note: M – arithmetic mean

The results (Table 3) showed a low level of systemic reflexion and medium levels of introspection and quasi-reflexion.

The analysis of our results proved that creativity, original approach to the problem, striving for recognition and respect, value of achievement and building good relations with the environment correlate with the way of sensory regulation only in difficult situations of uncertainty.

At the same time, the value of gaining objective knowledge about oneself, developing personal abilities, the importance of hobbies and healthy lifestyles are actualized during self-regulation in extremely difficult situations of uncertainty.

Significant correlations of the regulatory-personal planning scale with values of self-development, creativity, prestige, success, financial position, the importance of the professional, family and public educational sphere, with the scales of sensory-life orientations point to the leading role of the regulatory-personal link in the planning and goal-setting process (see Tabl. 4).

Table 4
Indicators of the interconnection between the components of the value-sensory sphere and the regulatory-personal links by "MTVV", "PIL", "SSRB" (n=153)

Components of value-sensory sphere	Regulatory-personal links			
	Planning	Simulation	Programming	Flexibility

Sensory vital orientations ("PIL")	Goals	.181*	.321**	.261**	.221**
	Results	.206*	.323**	.262**	.275**
	Locus of control "Life"	.189*	.231**	.223**	.278**
	Locus of control "Self"	.122	.329**	.231**	.286**
	Understanding life	.178*	.343**	.275**	.346**
Vital values ("MTVV")	Personal development	.227*	.103	.125	.178*
	Creativity	.207*	.079	.063	.184*
	Own prestige	.274**	.025	.039	.081
	Achievement	.270**	.146	.173*	0.216**
	Financial position	.214**	.028	-.023	.231**
Vital spheres ("MTVV")	Professional life	.266**	.178*	.121	.183*
	Family life	.292**	.014	-.012	.152
	Social activity	.243**	.061	.062	.268**
	Education	.178*	.157	.044	.193*

Note: * – statistical significance of $p \leq .05$; ** – statistical significance of $p \leq .01$.

The presence of goals that determine orientation and life perspective based on one's beliefs, satisfaction with self-realization and emotional saturation of life, correlate with such regulatory links as programming, flexibility, and simulation. The high level of development of sensory-life orientations confirms the adequacy of life plans and the relevance of their results to the objectives adopted.

4. Discussion

The empirical results obtained are in line with the results of Iu. Sova Study who found significant correlations between changing attitudes to crisis and relevant life values for the student (Sova, 2009).

We are convinced that the more significant the values mentioned above, the more flexible the individual's regulatory process becomes. Regulatory flexibility makes it possible to respond adequately and instantly to changing events and to successfully solve problems that arise in a situation of uncertainty. This becomes possible if the individual strives for independence of his/her own life positions – an indicator of his/her regulatory autonomy.

Unfortunately, this regulatory link is currently the weakest in the integral process of sensory regulation (the obtained correlations of independence with the components of sensory self-regulation are statistically insignificant). The development of adequate self-esteem, steady subjective criteria for evaluating the success of the results is the main condition for establishing regulatory autonomy, a necessary element of arbitrary self-regulation.

The results of factor analysis indicate that young people are aware of situations of uncertainty through the prism of world-view constructs, and that they use their own values system of life to assess situations determined by external circumstances. The ability to stand above the situation, as the second factor proves, helps not to miss its smallest nuances at the moment of experiencing the situation.

Tense situations, especially if they are long-lasting, are often a source of concern for future teachers. This is overcome by the tendency to reflect, intensify personal resources, and use coping strategies. Apart from it, the search for information and emotional support, the conviction of the need to dive into the problem to solve it, is one of the techniques of sensory self-regulation.

Distinguished factors prompted us to search for causes that determine the described behavior of the individuals under study. Obviously, this process is associated with the personal features of the individual. However, a certain type of human behavior in a situation of uncertainty is determined by a certain type of sensory system.

The basic structure for the formation of the type of sensory system is the structure of subjective experience, components of which are: value experience, experience of reflection, experience of habitual activity, operational experience and experience of cooperation (Osnitskii, 1996). It is the meaning of the subject that is directly related to things or events.

The conducted analysis of reflexive manifestations did not reveal any significant differences within the types of reflexion among the respondents with different types of sensory system. And this leads to the conclusion that reflection should be considered as a means of self-knowledge, which directs the subject's consciousness in a certain direction.

Interesting in self-regulatory processes is consideration of K. Brown and R. Ryan. Researchers have found that realized presence (this way they mark reflexion) correlates positively with self-esteem and optimism, as well as with emotional subjective well-being. Negative correlations of conscious presence are recorded with neuroticism, impulsiveness, emotional disorders, dissatisfaction, etc. (Brown & Ryan, 2003). We do not consider these conclusions to be categorical because they may be based on various understanding of reflexion and different methods of its diagnosis.

Sensory regulation of young people's behavior can take several actions in a situation of uncertainty. The first is to change the attitude to the problem that arises in a situation of uncertainty based on contemplations. It involves an internal reformation, an effort to change oneself. The second action involves finding a way out of the situation, proactive actions to overcome and change external circumstances. These are actions aimed at modifying the situation. The third is based on the avoidance of self-solving of the problem. Actions to resolve the situation in this direction can be quite varied.

In particular, when it comes to health, they seek help from loved ones. Distraction from the problem, shifting attention from the object of experience to a neutral object is most often used by students in situations of betrayal. When dreams and plans for the future are destroyed, they compensate it by engaging in another activity or favorite business.

5. Conclusions

Sensory self-regulation of future teachers in a situation of uncertainty is an integral and multilevel characteristic that reflects person's ability to manage all types of activity. The importance and need to consider the problem of sensory self-regulation of the individual in a situation of uncertainty has been actualized.

The factor analysis determined the structure of sensory self-regulation of future teachers, which consists of four main factors (67.139%), namely: F1, "Value-sensory evaluation of the situation" (31.774%), F2, "Super situationality of evaluation" (18.936%), F3, "Reducing the emotional situation" (9.536%) and F4, "Positive understanding of the situation" (6.893%). It is displayed that the sensory core of the personality is values and senses.

These structures determine the content and nature of future teachers' behaviors in a situation of uncertainty. The stated hypothesis is proved. Sensory self-regulation in a situations of uncertainty is effective, subject to systemic reflection is based on the evaluation of the situation in the context of one's own life-orientations; a component of the system of values and meanings, provides regulation of behavior in a situation of uncertainty and helps to reduce the emotional severity of the event.

Bibliographic references

- Ball, G. A. (2010). Choice in Human Life as the subject of systematic and psychological analysis. *The world of psychology*, 1, 197-208. Retrieved from: <https://elibrary.ru/item.asp?id=13946760>
- Boiarintsev, V. P. (1986). Structural and functional analysis of dynamic manifestations of human behavior self-regulation. In: *Psychology and psychophysiology of individual differences in activity and self-regulation of human behavior* (pp.40-55). Sverdlovsk: SGPI.
- Boryshevskiy, M. Y. (2012). *Personality in the dimensions of self-consciousness*. Sumy: Ellada.
- Bratus, B. S. (1999). Personal meanings according to A. Leontyev and the problem of the vertical of consciousness. In: *Traditions and perspectives of the activity approach in psychology: A. Leontyev's school* (pp. 284-298). Moscow: Smysl.
- Brown, K. W. & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84 (4), 822-848. DOI: 10.1037/0022-3514.84.4.822
- Carver, C. S. (2004). Self-regulation of action and affect. In R. F. Baumeister, & K. D. Vohs (Eds.), *Handbook of self-regulation: Research, theory and applications* (pp. 13-39). New York, NY: Guilford Press. Retrieved from: [http://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=845586](http://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=845586)
- Fantalova, E. B. (2001). *Diagnosis and psychotherapy of inner conflict*. Samara: BAHRAH. Retrieved from: [http://psychlib.ru/mgppu/PhDp-2001/FDP-001.HTM#\\$p1](http://psychlib.ru/mgppu/PhDp-2001/FDP-001.HTM#$p1)
- Frankl, V. E. (2006). *Man's search for meaning*. Boston: Beacon Press. Retrieved from: https://edisciplinas.usp.br/pluginfile.php/3403095/mod_resource/content/1/56ViktorFrankl_Mans%20Search.pdf
- Halian, I. M. (2017). Methodological bases of distinguishing types of value-sense self-regulation of future teachers. *Science and education*, 9, 36-41. DOI: 10.24195/2414-4665-2017-9-6
- Halian, I. M. (2018). Motivational and value determinants of professional development of future physical education teachers. *Scienceandeducation*, 3, 36-42. DOI:10.24195/2414-4665-2018-3-5
- Halian, I. M. (2016). *Value-sense self-regulation of personality: Genesis and mechanisms of functioning*. Drogobych: DSPU.
- Hollingshead, A. (1975). *Four factor index of social status*. Unpublished manuscript, Yale University, New Haven, CT. Retrieved from: https://www.academia.edu/927771/Four_Factor_Index_of_Social_Status
- Konopkin, O. A. (2012). Conscious self-regulation as a criterion of subjectivity. *Bulletin of the practical psychology of education*, 4, 97-101. Retrieved from: http://psyjournals.ru/files/93145/vestnik_psyobr_2012_n4_Konopkin.pdf
- Kriukova, T. L. & Kuftiak, Ye. V. (2007). The questionnaire of controlling (the adaptation of the methods WCQ). *Journal of an applied psychology specialist*, 3(93), 102-112.
- Kuhl, J. (1987). Action control: The maintenance of motivational states. In: Halisch, F. & Kuhl, J. (Eds.) *Motivation, intention, and volition* (pp. 279-291). Berlin; Heidelberg: Springer-Verlag. Retrieved from: https://link.springer.com/chapter/10.1007/978-3-642-70967-8_19
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Company. Retrieved from: <https://epdf.pub/stress-appraisal-and-coping.html>
- Leontyev, D. A. & Averina, A. Zh. (2011). The phenomenon of reflexion in the context of self-regulation problem. *Psychological research*, 2 (16). Retrieved from: <http://psystudy.ru/index.php/num/2011n2-16/463-leontiev-averina16.html>
- Leontyev, D. A. & Osin, E. N. (2014). Reflection "good" and "bad": from explanatory model to differential diagnosis. *Psychology. Journal of the Higher School of Economics*, 11 (4), 110-135.
- Leontyev, D. A. (2003). *Psychology of meaning: nature, structure and dynamics of semantic reality*. Moscow: Smysl. Retrieved from: https://lib.uni-dubna.ru/search/files/psy_leo_psy_smisla/1.pdf
- Leontyev, D. A. (2006). *Test of life-meaningful orientations (LMO)*. *Psychodiagnostic series*. Moscow: Smysl. Retrieved from: <https://www.twirpx.com/file/83225/>
- Morosanova, V. I. & Aronova, E. A. (2007). *Self-awareness and self-regulation of behavior*. Moscow: Institute of Psychology, Russian Academy of Sciences. Retrieved from:

<http://biblioclub.ru/index.php?page=book&id=86570>

Morosanova, V. I. (2004). *Questionnaire "Style of self-regulation of behavior (SSRB)": The guide*. Moscow: Kogito-Center. Retrieved from:

<http://www.studentlibrary.ru/book/ISBN5893531264.html>

Osnitskii, A. K. (1996). Problems of subjective activity research. *Psychology issues*, 1, 5-19. Retrieved from: <http://www.voppsy.ru/issues/1996/961/961005.htm>

Osnitskii, A. (2001). The structure, content and functions of person's regulatory experience. *Extended abstract of Doctor's thesis*. RAS Psychological Institute. Moscow. Retrieved from: <http://www.dslib.net/obwaja-psixologia/struktura-soderzhanie-i-funkcii-reguljatornogo-opyta-cheloveka.html>

Popovych I. S.; Blynova, O. Ye., Aleksieieva, M. I., Nosov, P. S., Zavatska, N. Ye. y Smyrnova, O. O. (2019). Research of Relationship between the Social Expectations and Professional Training of Lyceum Students studying in the Field of Shipbuilding. *Revista ESPACIOS*, Vol. 40(33). Page 21. Retrieved from: <https://www.revistaespacios.com/a19v40n33/19403321.html>

Popovych, I. S. (2017). Psychology of social expectations of personality. *Extended abstract of Doctor's thesis*. Severodonetsk: Volodymyr Dahl East-Ukrainian National University.

Popovych, I. S. (2019). *Psychology of Social Expectations of Personality: Methodology, Theory and Practice*. Kherson: OLDI-PLUS.

Seryi, A. V. & Ianitskii, M. S. (2015). The semantic aspects of experiencing the crisis of social identity in the forced change of life situation. *Psychological research*, 8(43), 12. Retrieved from: <http://psystudy.ru/index.php/num/2015v8n43/1192-seryi43.html>

Sopov, V. F. & Karpushina, L. V. (2002). *Morphological test of vital values: The guide to application*. Samara: SamIKP Publishing House – Scientific Center of the RAS. Retrieved from: <https://www.twirpx.com/file/2835133/>

Sova Iu. I. (2009). Semantic self-regulation of student's resilient attitude to crisis situations. *Extended abstract of Candidate's thesis*. Tambov State University named after G. Derzhavin. Tambov.

Rothman, A. J., Baldwin, A. S., & Hertel, A. W. (2004). Self-regulation and behaviour change: Disentangling behavioural initiation and behavioural maintenance: Research, Theory, and Applications. In R. F. Baumeister, & K. D. Vohs (Eds.), *The handbook of self-regulation: Research, Theory, and Applications* (pp. 130-148). New York, NY: Guilford Press. Retrieved from: <https://experts.umn.edu/en/publications/self-regulation-and-behavior-change-disentangling-behavioral-init>

Vasiliuk, F. E. (1997). Psychology of choice. In: Leontiev, D. & Schur, V. (Eds.) *Psychology with the Human Face: A Humanistic Perspective in Post-Soviet Psychology* (pp. 284-315). Moscow: Smysl.

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