

PSYCHOLOGY OF PERSONALITY PROFESSIONAL DEVELOPMENT

Collective monograph

¹²⁵⁶
 ¹²³³ Lviv-Toruń
Liha-Pres
LIHA-PRES 2019

Reviewers:

Konrad Janowski, PhD, Vice-dean of the Faculty of Psychology,
University of Economics and Human Sciences in Warsaw (Republic of Poland);

Prof. dr hab. Tadeusz Dmochowski, University of Gdansk (Republic
of Poland).

Psychology of personality professional development : collective
monograph / M. Smulson, O. Volobuieva, M. Tomchuk, L. Lytvynchuk,
O. Makhelai, A. Fedyk, T. Scherban. – Lviv-Toruń : Liha-Pres, 2019. –
152 p.

ISBN 978-966-397-150-6



Liha-Pres is an international publishing house which
belongs to the category „C” according to the classification of
Research School for Socio-Economic and Natural Sciences of
the Environment (SENSE) [isn: 3943, 1705, 1704, 1703, 1702,
1701; prefixMetCode: 978966397]. Official website –
www.sense.nl.

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PSYCHOLOGICAL MECHANISMS OF ADULTS INTELLECT AND SUBJECTNESS DEVELOPMENT

Maryna Smulson

INTRODUCTION

This Chapter considers the problems of developing mental features such as intellect and subjectness that are crucial to forming of all the mature professionals in any professional spheres. After all, these categories characterize an adult as a carrier of a certain mental model of the world, ready to solve professional and life problems, in other words, they create a psychological basis for mastering any professional competencies, as well as their inclusion in the competing systems that already exist in specialist in order to enrich the latter and, accordingly, professional growth. The latest research on subjectness examines the notion of a professional entity as organized integrity. According to V. Bykov and G. Bykova¹ (Bykov & Bykova, 2013), the subject of professional activity is a personality, which is characterized by professional subjectness as an integrative socio-psychological phenomenon. The latter provides the possibility to understand the meaning of the activity, set and implement within its scope its goals and initiate professional communication. A. Bodaliyov² (Bodaliyov, 1998), considering the concept of “professionalism” in terms of psychology, noted that the professional is the subject of activity, which has such stable characteristics of the mind, feelings, will, or, in other words, such mental features that allow him to perform the activity of his specialization at the high level of productivity. Along with the necessity to have the appropriate stable features, their development in the process of forming and renewing of professional activity is of no less importance.

¹ Bykov, V. M., & Bykova, A. V. (2013). *Sotsialno-psihologicheskaya koncepciya formirovaniya yadra subektnoj aktivnosti v obrazovatelnom processe vuza* [Socio-psychological concept of formation of nucleus of subjective activity in educational process of university]. Moscow [in Russian].

² Bodaliyov, A. A. (1998). *Vershina v razvitii vzroslogo cheloveka: kharakteristiki i usloviia dostizheniia*. [Apex in the development of an adult: characteristics and conditions of achievement]. Moscow: Nauka. Publ. [in Russian].

Postclassical methodology considers the category of development as relevant not only to human development, but also to the development of systems and, accordingly, their systemic self-organization. The concept of a bifurcation point, that is, non-returning, has emerged. Having passed this point, any system, and a person, too, is not able to return to the previous state, which, incidentally, very accurately characterizes the situation of serious life choices. In addition, modern psychology pays much greater attention to the internal aspects of development and self-development than environmental influences, and accordingly places emphasis on the individual trajectory of development, the authorship of one's own life. Therefore, modern approaches to the human development and self-development are also largely oriented towards systems theory.

1. The concept of development in the contemporary psychology

The main provisions for the construction of a dynamic model of development based on the theory of systems self-organization were developed by S. Piankova³ (Piankova, 2009). She notes that a human as an organism and a personality are an open self-organizing system characterized by non-linear processes. The hierarchy of psychic carriers (psychological system), which is self-organizing, is the substrate of psychological development and is characterized by its own internal system dynamics.

Demographic changes, the obvious aging of society promote actualization of approaches to the life-span development. The latter concept is nowadays widely used instead of ontogenetic development. It is clear that the analysis of the developmental processes of the adult and the elderly people requires slightly different approaches than the development of a child, a teenager, a young person and so on. For them, development is, as noted by D. Leontiev⁴ (Leontiev, 2013), a

³ Piankova S. D. (2009). *Kognitivnoe razvitie i samoorganizaciya* [Cognitive development and self-organization. Development Theory: Differential Integration Paradigm]. Moscow: Yazyki slavyanskikh kultur Publ. [in Russian].

⁴ Leontiev, D. A. (2013). Lichnostnoe izmerenie chelovecheskogo razvitiya [The personal dimension of human development]. *Voprosy psihologii – Psychological issues*, 3, 67–80 [in Russian].

form of existence, but this is a so-called universal component of human development (before the completion of socialization), in contrast to the optional component associated with the statement and addressing the individual developmental challenges of adults.

Finally, we are witnesses and active participants in change, moreover, the active breakdown of standard social situations and universal development – from pre-school to postgraduate, since non-formal learning, home-based learning, distance learning and other virtual education environments, inclusive training, all kinds of professional and non-professional (in every sense of the word) trainings, etc. have appeared and are spreading rapidly.

On the other hand, the concept of development is an eternal psychological concept, and V. Zinchenko rightly said: “Outside the category of development, psychology as a science is hardly possible, since a person is never equal to himself. He is either bigger or smaller than himself and his time”⁵ (Zinchenko, 2010, p. 131).

Modern psychological terminology offers a wide range of synonyms for the concept of “development”, for example, genesis, change, formation, training, amplification, crisis, etc.

There is a difficulty with the antonyms of the concept “development”. If the subject is not developing, what happens to him / her? Stagnation, degradation, dementia or just a normal life without changes and cataclysms?

It should be noted here that psychology has received the analyzed concept of “gift” from philosophy, which links approaches to the concept of development with the dialectical concept of development in the struggle of contradictions. In our opinion, the definition of development, proposed by E. Yudin⁶ (Yudin, 1983a), is still not really lost, according to which development is an irreversible, directed, regular change of material and ideal objects. Only the simultaneous presence of all these properties distinguishes the processes of development among other changes, – says the author, – because, first, the inverse of changes characterizes the processes of functioning.

⁵ Zinchenko, V. P. (2010). *Soznanie i tvorcheskij akt* [Consciousness and the creative act]. Moscow: Yazyki slavyanskikh kultur Publ. [in Russian].

⁶ Yudin, E. G. (1983). *Razvitie* [Development. Philosophical Encyclopedic Dictionary]. Moscow: Soviet Encyclopedia Publ. [in Russian].

Accordingly, the antonym of the concept of development is not degradation, but rather functioning, that is, the cyclic reproduction of a constant system of functions. In other words, lack of development, although characterized by “quiet stable functioning”, cannot in any way be regarded as a positive characteristic of a life situation.

Secondly, the lack of regularity is characteristic of random catastrophic processes and, thirdly, in the absence of directionality, changes cannot accumulate, and therefore the process loses the development of a single, interconnected line. As a result of development, a new quality emerges that changes the composition or structure of the development entity (that is, the emergence, transformation or disappearance of its elements and relationships).

Note that, according to E. Yudin⁷ (Yudin, 1983b), the essential characteristic of development processes is time: firstly, any development takes place in real time, and secondly, only time reveals the direction of development. This point is of fundamental importance for the development of the aged and old man, since the apparent scarcity of the vital resource highlights many relevant specific problems.

In his contemporary view of the problems of developmental psychology, O. Sergiienko proposes new methodological principles, including the principle of continuity and subjectness. Continuity of development refers to the interconnection of all stages of human development, the self-development of the systematic organization of the psyche, the genetic and environmental coordinates of mental change. Accordingly, the principle of anticipation of development insists on the necessary preparation of the next stages of development by the previous ones, which is inherent in all mental processes in their development. Subjectness is the principle of authorship of one’s own development, uncertainty and uniqueness of the ways of development of the psyche⁸ (Sergiienko, 2012).

⁷ Yudin, E. G. (1983). *Razvitie* [Development. Philosophical Encyclopedic Dictionary]. Moscow: Soviet Encyclopedia Publ. [in Russian].

⁸ Sergiienko, E. A. (2012). *Principy psihologii razvitiya: sovremennyj vzglyad* [Principles of Developmental Psychology: A Contemporary View]. *Rsihologicheskie issledovaniya – Psychological research*, vol. 5, 24 [in Russian].

The principle of authorship of our own development, that is, unique self-development, self-movement corresponds to the approach to this problem by G. Kostiuk⁹ and S. Maksimenko¹⁰ (Kostiuk, 1969; Maksimenko, 2006) which we take into consideration in our research. Subjective self-development is seen as one in which the subject sets his or her own goal of development, and uses various opportunities and potentials to achieve it – his own personal potential as well as the one proposed by the external environment. We interpret self-development as a change in the mental model of the world, or the system of mental models (mentality); and also, as a new meaning; as a reinterpretation of personal experience. Self-development is defined by restructuring, amplification, reinterpretation, reconstruction of mental models of the world, restructuring of connections between them at all levels in the metamental model (that is, the system model, which defines personality)¹¹ (Smulson, 2009a).

We cannot disagree with O. Sergiienko that developmental psychology is not so much a separate branch of psychology as a way of studying psychic phenomena in their development. Interestingly, at this point in the analysis, the contemporary approaches of the followers (in the third or even the fourth generation) of S. Rubinshtein overlap with the approaches of L. Vygotskyi's successors, who believed that "only in genesis the true structure of psychic functions can be revealed: when they are already finally formed, their structure becomes indistinguishable"¹² (Galperin, 1977).

We support the new interpretation of modern psychology of regression as an antipyretic development. It is clear that development throughout life can certainly not be uniform, necessarily accompanied by ups and downs, plateaus, etc. Regressive and deadlocked lines of

⁹ Kostiuk, G. S. (1969). *Princip razvitiya v psihologii* [The principle of uncertainty in the psychology of choice and risk. Methodological and theoretical problems of psychology]. Moscow: Nauka Publ. [in Russian].

¹⁰ Maksymenko, S. D. (2006). *Henezha zdiisnennia osobystosti* [Genesis of personality realization]. Kyiv: TOV "KMM" Publ. [in Ukrainian].

¹¹ Smulson, M. L. (2009). *Intelekt i mentalni modeli svitu* [Intellect and mental models of the world]. *Naukovi doslidzhennia kohnityvnoi psykhologii – Scientific and cognitive psychology*. Ostroh: Natsionalnoho universytetu "Ostroh" Publ., vol. 12, 38–49 [in Ukrainian].

¹² Galperin, P. Ya. (1977). *K ucheniyu ob interiorizatsii* [To the doctrine of internalization.]. *Voprosy psihologii – Psychological issues*, 6, 21–29 [in Russian].

development are possible, but they are not manifestations of degradation, since regressive development is also a qualitative transformation of the system. The fundamental point in considering regression as antipyretic development is the non-transition through the bifurcation point, the possibility of returning with amplification to higher levels (as, for example, in overcoming adolescent self-centeredness – to intellectual decentration), or overlapping of regressing functions by others or their conglomerate (in case of memory defects in old age).

At the same time, this is why regress is interpreted as the anticipative development that it envisages (anticipating), after a temporary recession, a new upswing, but not necessarily in the same direction in which the development took place earlier.

B. Elkonin notes that, according to such a new understanding of the course of development, sensitivity is created when the emergence of new formations is at the same time the destruction of obsolete structures, it must be built as a sway. Therefore, “the completion of the correct formation is at the same time once-design, once-ordering of the schematism of the existing actions”. “In the horizon of development, it makes sense to talk about the result and its relation to the future, to talk about what opens when something else ends. Autonomy and initiative must be “placed” on the verge of completion-opening and understood as the energy of the manifestation of a new space of opportunities”¹³ (Elkonin, 1994).

The question remains of the criterion basis of development. V. Zinchenko is sure that the essence of development lies in the appearance of new formations (otherwise – functional organs). According to O. Ukhtomskyi, a functional organ of the individual is a temporary combination of forces that can make a certain achievement. It should be understood that the creation of functional organs is the result of great work, efforts that have been made in the history of mankind and carried out by each person. D. Leontiev emphasizes on this aspect when pointing to the specifics of personal development as opposed to its social and biological moments¹⁴ (Leontiev, 2013). There are no instruments for

¹³ Elkonin, B. D. (1994). *Vvedenie v psikhologiyu razvitiya* [Introduction to developmental psychology]. Moscow: Trivola Publ. [in Russian].

¹⁴ Leontiev, D. A. (2013). *Lichnostnoe izmerenie chelovecheskogo razvitiya* [The personal dimension of human development]. *Voprosy psikhologii – Psychological issues*, 3, 67–80 [in Russian].

functional organs created by man, thus their accounting is difficult. Moreover, the problem is the timing of the creation of these tools under the task, which requires special work on their fixation in crystallized intelligence, because, according to V. Zinchenko, these tools are not subject to external observation, and only in the course of their activity, they manifest their external as well as internal nature.

That is why we propose to conditionally unite them under the auspices of the mental model of the subject's world, and to speak of development only if it is substantially fundamentally changed. This aspect is especially true of intellectual development and self-development in adulthood¹⁵ (Smulson, 2009b).

2. Psychological mechanisms of development and self-development of the subjectness

It should be noted that the current consideration of the development category is impossible without focusing on the problems of self-development. In an article by M. Shchukina¹⁶ (Shchukina, 2018), which offers an overview of contemporary foreign studies of intentional self-development, self-development is rightly defined as a specific form of intentional, self-determined, self-directed development.

The systematic approach involves the analysis and use in the organization of processes of development of appropriate psychological mechanisms¹⁷ (Smulson, 2014). The concept of psychological mechanism is not a metaphor, but a theoretical construct, and the difference between them, as noted by Y. Mashbits, – in the heuristic

¹⁵ Smulson, M. L. (2009). Intellect i mentalni modeli svitu [Intellect and mental models of the world]. *Naukovi doslidzhennia kohnityvnoi psykhologii – Scientific and cognitive psychology*. Ostroh: Natsionalnoho universytetu “Ostroh” Publ., vol. 12, 38–49 [in Ukrainian].

¹⁶ Shchukina, M. A. (2018). Evristichnost subektnogo podhoda v psihologicheskikh issledovaniyah samorazvitiya lichnosti. [The heuristic nature of the subjective approach in psychological studies of personal self-development]. *Psihologicheskij zhurnal – Psychological journal*, vol. 39, 2, 48–57 [in Russian].

¹⁷ Smulson, M. L. (2014). Psykholohichni mekhanizmy v kontseptsii navchannia Yu. I. Mashbytsia [Psychological Mechanisms in the Concept of Teaching Y. Mashbits]. *Tekhnolohii rozvytku intelektu – Intellectual Development Technologies*, vol. 1, 6. Retrieved from: http://psytir.org.ua/index.php/technology_intellect_develop/article/view/123 [in Ukrainian].

value, that is, the value for staging and conducting relevant psychological research, the implementation of approaches to psychological and pedagogical substantiation of didactic solutions. According to Y. Mashbits, the mechanism can be talked about only when it comes to the system. In other words, he proposes to consider psychic phenomena and processes in the context of considering psychological mechanisms as systems and subsystems. It should be noted at the same time that Y. Mashbits never undertook a general psychological definition of the mechanism, and always stopped to consider the psychological mechanisms of teaching. (Accordingly, our further attempt to extrapolate the concept of psychological mechanisms to other components of the subject of psychology, in particular, to development, remains solely on our responsibility). “We understand by the mechanism of the learning system,” he wrote, “a theoretical construct that describes the interaction of the components of the system that ensures its functioning. If the system is the subject of psychology, these mechanisms should describe interaction at the psychological level, that is, act as psychological mechanisms”¹⁸ (Mashbits, 2019, p. 7). Therefore, the first aspect that is fundamental to understanding the psychological mechanisms of learning is the systematic learning. An important point here is the decomposition of training, in other words, which subsystems are included and how exactly these subsystems interact. Like any systemic education, learning involves many ways of membership (for example, student-teacher, or knowledge, skills, etc., competent structure), but not all of them allow the psychological mechanisms of learning to be analyzed. Y. Mashbits views education as a system of activities – learning and teaching. It is clear that learning activity is the activity of the student in the system of education, and teaching – the activity of the teacher. Therefore, psychological mechanisms of learning describe the interaction of a teacher and a student at the level of their activities. In the learning concept of Y. Mashbits, this interaction is interpreted as management. The student’s activity is a managed system, and the teacher’s is a managing one. Management means are the educational influences

¹⁸ Mashbits, Yu.I. (2019). *Psykhologichni mekhanizmy i tekhnolohiia navchannia* [Psychological mechanisms and technology of teaching]. Kyiv: Interservis Publ. [in Ukrainian].

(basic and auxiliary), and the ways of functioning, of the student's activity are the student's tasks and learning activities of the pupils. Therefore, the key notions in the concept of psychological mechanisms of Y. Mashbits are system, interaction, management, activity, etc. The next step in the consideration of psychological mechanisms of learning is three leading mechanisms proposed by Y. Mashbits, namely feedback, defining the learning task, as well as the dynamic distribution of the functions of managing learning activity between the student and the teacher.

In our opinion, the concept of psychological mechanisms operationalizes the processivity of the psyche and mental formations as formations primarily systemic. On the other hand, the movement (development) of the system is impossible without the mechanisms of the system, which certainly concerns both the professional activity and the subject of professional activity.

The concept of "subject" in modern psychology is viewed in the context of post-classical science and is associated with its interpretive, or otherwise reflective, capabilities in different environments of life^{19,20} (Lepskii, 2013a; Stepin, 2003). The key to post-classical science is the subject-oriented paradigm ("subject – polysubjective environment") and the environmental paradigm ("self-evolving environment"). These include socio-humanitarian scientific technologies that provide a number of functions of subjects of cognition: communicative, representative (providing reflection of subjects), ontological (connection of the subject of cognition with the realities of being) and integrative (integration of the space of knowledge)²¹ (Lepskii, 2013b).

¹⁹ Lepskii, V.E. (2013). Potencialy razvitiya psihologii v kontekste postneklassicheskoy nauchnoj racionalnosti [The potentials of the development of psychology in the context of post-non-classical scientific rationality]. Proceedings from Ideas O. K. Tikhomirova and A. V. Brushlinskii and fundamental problems of psychology (to the 80th birthday) '13: *Vserossijskoy nauchnoj konferencii (s inostrannym uchastiem – The All-Russian Scientific Conference (with foreign participation))* (pp. 63–65). Moscow: Publisher Moscow State University named after M. V. Lomonosov [in Russian].

²⁰ Stepin, V. S. (2003). Samorazvivayushiesya sistemy i postneklassicheskaya racionalnost [Self-developing systems and post-non-classical rationality]. *Voprosy filosofii – Problems of Philosophy*, 8, 5–17 [in Russian].

²¹ Lepskii, V.E. (2013). Potencialy razvitiya psihologii v kontekste postneklassicheskoy nauchnoj racionalnosti [The potentials of the development of psychology in the context of post-non-classical scientific rationality]. Proceedings from

Studies of subjectness and subjective activity are consistent with the subject-activity concept that comes from S. Rubinshtein²² (Rubinshtein, 1989). According to S. Rubinshtein, it is known that man as a subject is introduced into being, he continues himself into the world, restructures the space of his being in accordance with personal meanings. Thus, A. Brushlinskii points out that the humanistic interpretation of a person as an individual helps to fully and systematically reveal his / her specific activity in all types of interaction with the world (practical, purely spiritual, etc.). With adulthood, self-development and self-education occupy an increasing place in human life, and accordingly, greater proportion belongs to internal conditions as a basis for development. It insists on the uniqueness, activity, responsibility, independence, integrity of the individual as a subject²³ (Brushlinskii, 1994a).

Analyzing A. Brushlinskii's approach to the understanding of the subject and subjectness, which became widespread in psychology at the beginning of the XXI century, O. Sergiienko, the author of the system-subject approach, notes, in particular, that "the subject is a person at the highest level of his / her activity, integrity (systematicity), autonomy. At this level, the subject is extremely individualized, that is, shows the peculiarities of their own motivation, abilities, mental organization as a whole. The subject is a qualitatively defined method of self-organization, self-regulation of a personality, a way of reconciling external and internal conditions of performing activities in temporal scope, the center of coordination of all mental processes, states, properties, as well as the abilities, opportunities and limitations of the individual with respect to objective and subjective goals, ambitions and tasks of vital activity. Integrity, unity, integrativeness of

Ideas O. K. Tikhomirova and A. V. Brushlinskii and fundamental problems of psychology (to the 80th birthday) '13: *Vserossijskoj nauchnoj konferencii (s inostrannym uchastiem – The All-Russian Scientific Conference (with foreign participation))* (pp. 63–65). Moscow: Publisher Moscow State University named after M. V. Lomonosov [in Russian].

²² Rubinshtein, S. L. (1989). Printsip tvorcheskoi samodeyatelnosti [The principle of creative activity]. *Voprosy filosofii – Problems of Philosophy*. 4, 88–96 [in Russian].

²³ Brushlinskii A. V. (1994). *Problemy psikhologii subekta* [Problems of psychology of the subject]. Moscow: Institut psikhologii RAN Publ. [in Russian].

the subject are the basis for the systematicity of his / her psychic properties”²⁴ (Sergiienko, 2018).

A. Brushlinskii offers criteria for the subject, including isolation of the self from the environment, self-opposition to the reality as an object of action and cognition. The above criteria also include forming and constructing concepts, interaction with other people as subjects, and, finally, the integrity, unity, integrality of the subject’s actions and all kinds of his / her activity²⁵ (Brushlinskii, 1994b), which is of fundamental importance when considering the professional activity.

The content of the concept “*subject*” by A. Brushlinskii pushes the personality’s boundaries to view different types of a collective subject and, accordingly, differently compose the one²⁶. M. Guseltseva rightly notes that there are not only age and individual differences in subjectness, but also cultures differ in the degree of their subjectness and autonomy. Thus, “the birth of a nation in the course of human history psychologically means the acquisition of subjectness by the people”²⁷ (Guseltseva, 2018a).

V. Tatenko also emphasizes subjectness, autonomy, self-determination, spontaneity, integrativeness, and creativity of the subject²⁸ (Tatenko, 2006a). However, in his view, the concept “*subjectness*” has nothing to do with the above properties. It bears knowledge of the “holistic ontopsychological project of human existence”, as well as “orients to searching the internal sources and

²⁴ Sergiienko, E. A. (2018). Princip razvitiya v rabotah A. V. Brushlinskogo i ego sovremennoe osmyslenie [The principle of development in the works of A. V. Brushlinskii and his Contemporary Understanding]. *Psichologicheskij zhurnal – Psychological Journal*, vol. 39, 2, 14–24 [in Russian].

²⁵ Brushlinskii A. V. (1994). *Problemy psihologii subekta* [Problems of psychology of the subject]. Moscow: Institut psikhologii RAN Publ. [in Russian].

²⁶ *Problema sborki subektov v postneklassicheskoy nauke* (2010). [The problem of assembly of subjects in post-non-classical science]. Otv. red. V. I. Arshinov, V. E. Lepskii. Moscow: IF RAN Publ. [in Russian].

²⁷ Guseltseva, M. S. (2018). Rozhdenie subektivnosti iz duha chelovekoznaniya [The birth of subjectivity from the spirit of human knowledge]. *Voprosy psihologii – Psychological issues*, 1, 3–15 [in Russian].

²⁸ Tatenko, V. O. (2006). *Subiektno-vchynkova paradyhma v suchasniy psykholohii* [Subject-action paradigm in modern psychology]. *Liudyna. Subiekt. Vchynok: Filozofsko-psykholohichni studii* [Man. Subject. Action: Philosophical and Psychological Studies]. Kyiv: Lybid Publ. 316–357 [in Ukrainian].

motive impulse of its development, emphasizes its copyright, the ability to start a causal series from itself and bear personal responsibility for the actions committed”²⁹ (Tatenko, 2006b).

According to V. Tatenko to be the subject of one’s life for a person means to choose to be, strive and be a true human; to be determined in the space and time of his existence, to create his new meanings and forms, to reflect his creations, to acquire and increase experience, to design new forms and contents of being, and purposefully to realize the essential project of his being as a whole³⁰ (Tatenko, 2006c).

In our opinion, full-fledged subjectness corresponds to O. Losiev’s understanding of intelligence. According to it “intelligence is an individual life, or a function of the personality, who is accepted as a clot of natural-social-historical relations, who lives ideologically for the purposes of human well-being, does not stand by, but transforms the imperfections of life, which imperatively demands from a person a potential or actual feat to overcome these imperfections”³¹ (Losiev, 1988a).

Furthermore, “for an intelligent person, work is a celebration of eternal youth and joyful service to universal happiness”³² (Losiev, 1988b). Therefore, one cannot resist agreeing with the experts who put the category of the subject at the forefront in the dialogue of psychology and human sciences^{33, 34} (Guseltseva, 2018b; Znakov,

²⁹ Tatenko, V. O. (2006). *Subiektno-vchynkova paradyhma v suchasniï psykhologii* [Subject-action paradigm in modern psychology]. *Liudyna. Subiekt. Vchynok: Filozofsko-psykholohichni studii* [Man. Subject. Action: Philosophical and Psychological Studies]. Kyiv: Lybid Publ. 316–357 [in Ukrainian].

³⁰ Tatenko, V. O. (2006). *Subiektno-vchynkova paradyhma v suchasniï psykhologii* [Subject-action paradigm in modern psychology]. *Liudyna. Subiekt. Vchynok: Filozofsko-psykholohichni studii* [Man. Subject. Action: Philosophical and Psychological Studies]. Kyiv: Lybid Publ. 316–357 [in Ukrainian].

³¹ Losiev, A. F. (1988). *Derzanie duha* [Boldness of the Spirit]. Moscow: Politizdat Publ. [in Russian].

³² Losiev, A. F. (1988). *Derzanie duha* [Boldness of the Spirit]. Moscow: Politizdat Publ. [in Russian].

³³ Guseltseva, M. S. (2018). Rozhdenie subektivnosti iz duha chelovekoznaniiya [The birth of subjectivity from the spirit of human knowledge]. *Voprosy psihologii – Psychological issues*, 1, 3–15 [in Russian].

2017). M. Guseltseva offers an interesting synthesis of Western psychology several concepts to express the unique meaning of the concept “*subject*”: “selfness, actor and creator”³⁵ (Guseltseva, 2018c).

It should be noted that intellect and subjectness determine the indicator of creative, anti-manipulative and anti-crisis potential of the individual and, obviously, require constant development and psychological support. We will briefly recall the main provisions of the concept of adult intelligence developed by us³⁶ (Smulson & oth., 2015a).

3. The place of intellect in the professional development

By intellect we mean a holistic (integral) mental formation that is responsible for the creation, construction, and restructuring of mental models of the world by setting and solving tasks. The holistic and integral nature of intellect does not preclude its structure, that is, the presence of a number of components (structural elements) that define intellect as a mental formation. These are, above all, basic cognitions, among which are the basic mental processes (sensation, perception, memory, attention as control), cogitation and imagination, language and speech. However, intellect is not limited to the system of cognitions, but also includes metacognitions, metacognitive integrators, among which the leading ones are intellectual initiation (self-assignment), decentration, reflection and strategic fit. The dynamic of metacognitions, in its turn, determines the potential for the development and self-development of intellect as a whole. All intellect structural components, both cognitive and metacognitive, interact and integrate (create coalitions in intellectual activity) in accordance with

³⁴ Znakov, V.V. (2017). Novyi etap razvitiia psihologicheskikh issledovaniia subekta [A new stage in the development of psychological research of the subject]. *Voprosy psihologii – Psychological issues*, 2, 3–16 [in Russian].

³⁵ Guseltseva, M. S. (2018). Rozhdenie subektivnosti iz duha chelovekoznaniiya [The birth of subjectivity from the spirit of human knowledge]. *Voprosy psihologii – Psychological issues*, 1, 3–15 [in Russian].

³⁶ Smulson, M. L. & oth. (2015). *Intelektualnyi rozvytok doroslykh u virtualnomu osvithnomu prostori: monohrafiia* [Adult intellectual development in the virtual educational space: a monograph]. Kyiv: Pedahohichna dumka. Publ. Retrieved from: <http://lib.iitta.gov.ua/10064>. [in Ukrainian].

“the task” at any given moment, providing the corresponding amplification and transformation of mental models of the world that determine intellectual development.

Intellect plays a crucial role in finding new ways of effective activity, decision making in a situation of uncertainty and high cost of error, finally, in the construction of adequate projects of their own crisis management, in renewal of self-development potential. This implies not only the level of intellect, but its dynamic, the development of cognitions and especially metacognitions under new non-standard anti-crisis tasks. After all, even a high level of intellect will not work for the anti-crisis effect and will not be able to focus on constant “changes of changes” as a modern discourse, if it is not enriched and developed, but concentrated on “idle” processing crisis memory data, on stereotypical means of solving problems³⁷ (Asmolov, 2015).

Intellect is even more prone to self-development than other psychic structures because it creates a space of development for itself (taking into account and reflecting on its mental, genetic and environmental factors). In other words, the development of adult intellect functions as a mentally self-determined and self-initiated process, that is, as a self-development.

Intellect has an interprocessual and metacognitive nature and different modalities depending on the specific tasks and the particular context in which they are carried out. The development of intellect does not imply its willingness to work only at certain tasks, but always offers a wider repertoire of application.

How do metacognitions or, in other words, metacognitive intellect integrators work?

To trigger intellectual processes, it is necessary to have a problem that the subject feels, spots, etc., converts it into a task and begins to fulfill it, to solve it. In other words, a metacognitive process, which we call “intellectual initiation”, takes place. And “intellectual initiation” corresponds to spontaneous problem setting. When the process of intellectual initiation is started, reflective processes are connected.

³⁷ Asmolov, A. G. (2015). *Psihologiya sovremennosti: vyzovy neopredelennosti, slozhnosti i raznoobraziya* [Psychology of modernity: challenges of uncertainty, complexity and diversity]. *Psihologicheskie issledovaniya – Psychological researches*, 8(40). Retrieved from: <http://psystudy.ru> [in Russian].

Reflection as the basis for the development and change of the mental model of the world is supported by the notion of reflexive output and changes in reflective position. Intellect strategy, in its turn, involves the adequacy of any choice in the process of problem solving: the choice of the direction of the problem setting, the choice of concept or hypothesis, ways of testing them (if time permits), as well as the final choice, decision making and its implementation into the activity. In situations of intellectual interaction, joint decision-making, as well as in the analysis of one's own choices, intellectual decentralization attains fundamental importance. It assumes that a person begins to understand: there is not only his / her own, but also another (the second, and the third, etc.) point of view on a problem, and they can and should be understood. It is not necessary to accept, to agree, but by understanding the opposite (other) point of view, one enriches one's own. He / she may stand their ground, but intellectual decentration makes their own point of view richer, stronger, more voluminous, and more convincing.

Therefore, there is an urgent need to disclose and analyze the activity of an adult subject who independently searches for and finds problems for intellectual processing and solving, and acts both in real life and in virtual reality. The developmental aspect of subjectness is significant for the intellectual development of adults as well as for the development of personality in general^{38, 39, 40} (Kostiuk, 1969; Maksymenko, 2006; Smulson, 2016). In doing so, many aspects of considering the category of subjectness and subjective activity are consistent with our approach to intellect, intellectual development and self-development. We capture the main points of this connection.

³⁸ Kostiuk, G. S. (1969). *Princip razvitiya v psihologii* [The principle of uncertainty in the psychology of choice and risk. Methodological and theoretical problems of psychology]. Moscow: Nauka Publ. [in Russian].

³⁹ Maksymenko, S. D. (2006). *Henezha zdiisnennia osobystosti* [Genesis of personality realization]. Kyiv: TOV "KMM" Publ. [in Ukrainian].

⁴⁰ Smulson M. L. (2016). Rozvytok intelektu ta subiektnosti doroslykh u virtualnomu prostori [The development of adult intelligence and subjectness in virtual space]. *Tekhnolohii rozvytku intelektu – Technologies of Intellectual Development*, vol. 2, 2 (13). Retrieved from: http://psytir.org.ua/index.php/technology_intellect_develop/issue/view/18 [in Ukrainian].

We consider enrichment and restructuring of the mental model of the world as well as enhancement of human interpretative and reinterpreted potential as a leading criterion of intellectual development⁴¹ (Smulson & oth., 2015b). There is no doubt that it is about the growth of subjectness as a potential for an independent and original understanding of the world and its transformation. In doing so, virtually all of the intellectual metacognition described above works for the development of subjectness.

Therefore, there is no doubt that the connection between the problem of subjectness and subjective activity and the leading intellectual metacognitions, namely: intellectual initiation (self-assignment), strategic fit (choice), reflection and decentration, as well as with the functions of intellect: reflective, oriented and especially prognostic-transformative ones⁴² (Smulson, 2003). It is specified that the formation of prognostic-transformative function of intellect is the least studied one in psychology. However, this aspect needs special attention in terms of acquiring subjectness during life, in particular, adults' life and professional decision-making, choice of a life strategy, counteraction to lowering subjectness in difficult life circumstances.

CONCLUSIONS

To sum up, a theoretical analysis of the problem of intellect and subjectness development in adulthood has shown that these mental properties are the leading principles of professional development. (By an adult, we mean a person as an adult, conditionally after 20–22 years old, and the elderly, without defining the upper limit of adulthood and, accordingly, the point of onset of old age). This conclusion was experimentally confirmed by our researches of adult intellectual development in the virtual educational space, as well as the development of adult subjective activity^{43, 44, 45, 46, 47} (Smulson & oth.,

⁴¹ Smulson, M. L. & oth. (2015). *Intelektualnyi rozvytok doroslykh u virtualnomu osvithomu prostori: monohrafiia* [Adult intellectual development in the virtual educational space: a monograph]. Kyiv: Pedahohichna dumka. Publ. Retrieved from: <http://lib.iitta.gov.ua/10064>. [in Ukrainian].

⁴² Smulson, M. L. (2003). *Psykhohohiia rozvytku intelektu* [Psychology of Development of Intellect]. Kyiv: Nora-Druk Publ. [inUkrainian].

⁴³ Smulson, M. L. & oth. (2015). *Intelektualnyi rozvytok doroslykh u virtualnomu osvithomu prostori: monohrafiia* [Adult intellectual development in the

2015c; Smulson & oth., 2018; Kovalenko-Kobylianska, 2016; Ditiuk, 2017; Nazar & Meshcheriakov, 2017).

It is safe to say that professional development is first and foremost facilitated by an integrative intelligence based on a system of cognition and intellectual metacognition. In advanced professional activity, an important role is played by intellectual initiation, that is, the ability of a professional staff member to independently spot the problem and the task in the activity stream. This is precisely the property that distinguishes, for instance, an inventor from even a very hard-working and diligent worker, but not intellectually creative technician or engineer. The ability to spot and get an understanding of any problem on time – technical, organizational, communicative, etc. – and find the right solution by oneself or with the team can sometimes save a very sophisticated situation. At the same time such ability in its advance form does not in any way diminish the level of performing discipline, activity efficiency, etc.

virtual educational space: a monograph]. Kyiv: Pedahohichna dumka. Publ. Retrieved from: <http://lib.iitta.gov.ua/10064>. [in Ukrainian].

⁴⁴ Smulson, M. L. & oth. (2018). *Rozvytok subiektnoi aktyvnosti doroslykh u virtualnomu prostori* [The development of adult subjective activity in virtual space]. Kyiv: H. S. Kostiuk Institute of Psychology of the National Academy of Pedagogical Sciences of Ukraine. Retrieved from [http://lib.iitta.gov.ua/712119/1/ The development of adult subjective activity in virtual space.pdf](http://lib.iitta.gov.ua/712119/1/The%20development%20of%20adult%20subjective%20activity%20in%20virtual%20space.pdf) [in Ukrainian].

⁴⁵ Kovalenko-Kobylianska, I. H. (2016). Subiektna aktyvnist liudyny v period herontohenezu v umovakh osvithnoho prostoru Internet [Subjective activity of man in the period of gerontogenesis in the conditions of educational space Internet]. *Tekhnologii rozvytku intelektu – Technologies of Intellectual Development*, vol. 2, 2 (13). Retrieved from: http://psytir.org.ua/index.php/technology_intellect_develop/issue/view/18.

⁴⁶ Ditiuk, P. P. (2017). Sytuatyvna aktyvnist, vidnosna subiektnist ta svoboda vyboru [Situational activity, one of submission and freedom to vibrator]. *Tekhnologii rozvytku intelektu – Technologies of Intellectual Development*, vol. 2, 5 (16). Retrieved from: http://psytir.org.ua/upload/journals/2.5/authors/2017/Dityk_Pavlo_Pavlovych_Sytuatyvna_aktyvnist_vidnosna_subiektnist_ta_svoboda_vyboru.pdf [in Ukrainian].

⁴⁷ Nazar, M. M., Meshcheriakov, D. M. (2017). *Rozvytok subiektnoi aktyvnosti pry dystantsiinii hrupovii roboti z postrazhdalymy v zoni ATO* [Development of subjective activity in remote group work with the victims in the ATO zone]. *Aktualni problemy psykholohii* [Current problems of psychology. V. 11. Psychology of personality. Psychological assistance to the individual]. H. S. Kostiuk Institute of Psychology of the National Academy of Pedagogical Sciences of Ukraine (Vol. 15, 363–372). Kyiv [in Ukrainian].

What is really related to the subjectness of a professional, their own view of life, their own activity, and their ability to set goals, to creatively design their own activity as well as functioning is high level of intellectual initiation.

Reflection as an intellectual metacognition contributes to the construction and development of an adequate mental model of the specialist (i.e., the system of professional attitudes towards the world, others and themselves), and decentralization, respect for another point of view does not allow this mental model to become stiffened, i.e. to lose the capability for self-development. This point is of fundamental importance in the context of the general properties of the mental world model, including, in particular, the rigidity of change, as well as in the context of the peculiarities of the professional subject as the bearer of the mental model.

Finally, strategic fit as an intellectual metacognition affects all professional situations and not only ones, which require choice. Since every moment of any professional activity usually implies a certain choice, it can be said that the developed intellectual strategic fit along with the metacognition analyzed above, together with subjectness as a personality trait, is mainly responsible for the professional development of the individual.

SUMMARY

The article is devoted to theoretical and methodological analysis of psychological mechanisms of adult intelligence and subjectness. These categories have been featured to provide a psychological basis for mastering any professional competency as well as for professional growth. Development, unlike other changes, means unreversed, directed, regular changes of material and ideal objects that occur simultaneously. We interpret self-development as a change in the mental world model, or the system of mental models; and also as a new meaning acquisition; as a reinterpretation of personal experience. Self-development is determined by restructuring, amplification, reinterpretation, reconstruction of mental world models, restructuring of connections between them. Intelligence and subjectness ensure the creative, anti-manipulative and anti-crisis potential of a person's professional growth. Professional self-development is determined by the most dynamic constituents of intelligence – metacognitions, namely intellectual initiation, reflection, decentration and strategic fit.

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Information about the author:

Maryna Smulson

Doctor of Psychological Sciences, Professor,
Real member of National Academy
of Pedagogical Sciences of Ukraine,
Head of Department of Modern
Information Technologies of Education,
G.S. Kostiuk Institute of Psychology,
National Academy of Pedagogical Sciences of Ukraine
2 Pankivska str., Kyiv, 01033, Ukraine
ORCID ID: orcid.org/0000-0002-9563-3390
E-mail: smulson@ukr.net

**PROGRAM OF PURPOSEFUL DEVELOPMENT
OF ORGANIZATIONAL ABILITIES OF STUDENTS
AND CADETS OF THE NATIONAL ACADEMY
OF THE STATE BORDER GUARD SERVICE OF UKRAINE**

Olena Volobuieva

INTRODUCTION

Nowadays it is of vital importance to improve the system of professional training of the personnel of the State Border Guard service of Ukraine (SBGSU) particularly it is essential to develop the organizational abilities of the future border guard officers who are to organize the professional activities of the subordinates on combating international terrorism, illegal migration, human trafficking, drugs dealing, weapons smuggling and other transnational crimes on the state border of Ukraine. The results of the analysis of the problem of the border guard officers' professional competence indicate that the structure of their organizational abilities is determined by the specificity of their professional activity. The main functional duties of a border guard officer are the strict organization, support, control of the activities on protection and defense of the state border of Ukraine and also the proper moral and psychological support of the professional activity of all categories of the personnel.

Substantiation of the Program

Taking into our account the fact that the proper level of the organizational abilities give the border guard officer the opportunity to carry out the management activity on border protection effectively and the results of our analysis we have worked out the special program on the purposeful development of organizational abilities of students and cadets of the National Academy of the State border guard service of Ukraine (NASBGSU) where the professional training of all the categories of the personnel is carried out. While working out the program we have taking into our consideration the results) of: 1) the of the anonymous questionnaire on the organizational abilities of the

border guard officers as for their understanding, evaluation, meaning and structure in the context of the professional duties in the special and extreme activity conditions and 2) the state of the formation and development of the organizational abilities of the border guard officers according to the evidence the vectors of the rise in the level of their formation (at the first stage of professionalization) and development (at the further stages of professionalization) in the conditions of the higher military educational establishment¹ (Volobuieva, 2018).

Analysis of border guard officers' professional activity components

Having analyzed the psychological peculiarities of the border guards professional activity which is performed in the specific and extreme conditions we have determined the components of such activity. They are the following: the cognitive (gnostic), constructive, organizational and communicative components. Each component is typical of performing the certain functions and responsibilities. Let's analyze these components in more details.

1. *Gnostic component* (referred to in Greek as cognition), this component is also called a research component) – the system of some knowledge, skills and habits of border guard officer. This component is considered to be the basis of individual's professional activity, as well as the certain qualities of the cognitive activity that influence its effectiveness): 1) the research of the subjects of the very activity, the process peculiarities of the professional activity and the results of this activity; 2) study and monitoring of individual, age and gender characteristics of the subordinate personnel for effective mobilization of their activities; 3) the reflection of the peculiarities, specificity and results of an individual professional activity.

¹ Volobuieva O. F. (2018). Pro rezultaty anonimnogo opituvanny schodo organizatorskih zdibnostey ofitseriv-prikordonniv [About the Results of the Anonymous Questionnaire on the Organizational Abilities of the Border Guard Officers]. *Zbirnik naukovih prats Natsionalnoyi akademiyi Derzhavnoyi prikordonnoyi sluzhbi Ukraini. Seriya: psihologichni nauki – Collection of the Scientific Works of the National Academy of the State Border Guard Service of Ukraine. Series: Psychological Sciences*. Hmel'nitskiy: NASBGSU Publ. 1(9). 68–85 [in Ukrainian].

2. *Constructive component* – the authority and leadership function: 1) collecting and analyzing some information on the peculiarities and specifics of performing professional activities in the area of responsibility; 2) the ability to overcome stress as well as conflicts and to reach an agreement; 3) organization of group activities of the unit as a small group with external status in general and as a separate entity in particular; 4) the ability to develop a unit and consolidate it; 5) planning of a person’s professional activity as the leader of the unit, as well as processes of his/ her individual development.

3. *Organizational component*: 1) the various types of organizational and managerial activity; 2) the individual professional activity and behavior; 3) informing the subjects of the professional activity; 4) organization, support, control on the basis of individual demand and responsibility; 5) organization of activities of subordinate personnel using the up-to-date methods of the psychological influence on an individual in the conditions of considerable psychological stress²(Willis Dan, 2014).

4. *Communicative component*: 1) the ability to communicate and exchange some information; 2) communication flexibility; 3) establishing the optimal relations with the professional activity subjects; 4) problem-solving ability and the ability to change the nature of interpersonal relationships in the conflict situations.

All the components of the border guard officers’ professional activity are interrelated and implemented into the consolidated purposeful activity. The organizational activity is of vital importance in the border guard officer’s professional activity. This very type of activity plays the key role in the organizational system “border guard officer – subordinate personnel”. Moreover, it is the organizational activity that is the most important type of activity which integrates the various aspects of the specific professional activity of all the staff categories of the State Border Guard Service of Ukraine, because there is the organizational component in each of its sub-structures.

Let’s consider this aspect in more details. The professional interaction “border guard officer-subordinate personnel” implies joint

² Willis Dan (2014). *Bulletproof Spirit. The First Responder’s Essential Resource for Protecting and Healing Mind and Heart*. New World Library, the USA.

group activity; i.e. the activity of the small group with an external status. In the context of functioning of the small group with external status, the border guard officer is the official leader for the subordinate personnel. That is why the formation and the further development of the organizational abilities of the border guard officers is necessary for the proper performing moral and psychological support of the subordinate personnel. It goes without saying in the case of not having the essential commanding abilities; any border guard officer is not ready for carrying out the professionally-oriented interaction. A border guard officer has to be able of: 1) choosing the most optimal option in the specific situation of professional interaction and 2) providing the proper psychological support for the subordinate personnel professional activities.

Self-organization of an officer as a unit leader is one of the most important elements of his organizational activities as well as in the context of his professional activities as a whole. In this case, the important role in the process of self-organization is the ability to organize his personal mental abilities and processes, as well as the ability to manage them. In the process of implementing moral and psychological support for the professional activities of the subordinate personnel, the officer's ability to focus her/his attention on the certain types of the psychological support, including the conditions of the considerable psychological stress, to switch one's attention from one type of the professional activity to another, the ability to activate and mobilize all the mental abilities is extremely important, including their implementing in the extreme conditions.

Taking into the consideration the fact that the border guard officer is responsible for carrying out the proper moral and psychological support of the professional activity of the subordinate personnel around the clock and systematically, it is absolutely important to be able of organizing organize his her activities properly and making decisions in the case of changing the situation. In this context we emphasize the importance of the order and sequence of the officer's performance while carrying out duties in accordance with a defined strategy, as well as the ability to rationally alternate between different activities, taking into account the principle of reasonable sufficiency.

In the investigation we have taken into our account the fact that the specific abilities that are of interest include not only those which

may be reflected in general abilities, and also some special skills and knowledge. The organizational abilities are the specific abilities; they are more directly related to behaviours in the group and hence exert a more powerful effect upon group process³ (Shaw, 1976, p. 173).

The study results indicate that the ability to organize the moral and psychological support of professional activity of the State Border Guard Service of Ukraine personnel is a set of the individual psychological features of the development of the certain psychomotor and mental processes and properties of a border guard officer, which determine the speed, strength and relative ease of his organizational activities. The organizational abilities are formed in the process of officers' professional activity and ensure the success of the organizational work within the framework of effective group dynamics.

The professional activity of border guard officers involves, along with solution of a number of tasks of performing complex organizational functions, including organization of moral and psychological support for the professional activity of subordinate staff these functions are not limited to the management activities⁴. Among them there are three main groups: self-organization, organization of professional activities of personnel and general organization of the operation of the subordinate unit as a small group with the specific external status.

Taking into account the above mentioned facts the program of the purposeful development of organizational abilities of students and cadets of the NASBGSU (has been worked out on the basis of a complex approach to the professional suitability, which combines the analysis of the social factors of the professional development (organizational, knowledge, skills, motives) and individual's psychological characteristics.

The border guard officer's organizational activity is a multi-aspect and extremely complex part of the professional activity, which

³ Shaw E. (1976). *Marvin Group Dynamics. The Psychology of Small Group*. McGraw-Hill, the USA.

⁴ *Education Psychology (2000). Effective Teaching, Effective Learning*. Krtochwill Thomas R., Cook Jan Littlefield, Travers John F. Third Edition. Mc Grow-Hill Higher Education, the USA.

indicates that the organizational abilities are the important precondition for the professional suitability. This point of view is confirmed by the theoretical analysis and empirical data of our study. One of the effective ways of improving professional training of students and cadets of the NASBGSU is psychological comprehend of the mechanisms of the learning educational material, as well as revealing the role of general and special organizational abilities, their formation and development, ways of forming skills and aptitude of one's professional activity. According to the program it is envisaged the development of the organizational abilities in the training process in the conditions of the higher military educational establishment. While working out the program the results of the analysis of the academic courses taught in all areas of the professional training of border guards at the NASBGSU according to the levels of higher education were taken into account. They indicate that physical training, fire and tactical-specific training are of the particular importance for the development of students and cadets' organizational abilities.

Physical training is one of the main courses which is conducted at the Department of Physical Training and Personal Security where students and cadets have the course of Physical Education at the first Bachelor's degree level the course of Physical Training at the second Master's degree level. Physical exercises significantly affect development of the volitional character traits (the level of willpower as a complex indicator of volitional organization), self-organization, determination, perseverance, self-control, increasing the level of independence (including the problem-solving ability); improvement of value-meaning organization of personality; formation of mental and psychic stability, self-control and the ability to control one's emotional state), as well as necessary for improving attention stability.

"Fire Training", "Tactical Fire Training" (for specialization 'officer of the mobile units') courses are taught at the first Bachelor's degree level; "Fire Training Organization" course – at the second Master's degree level at the Department of Fire and Tactical Special Training.

The main purpose of these courses is the formation of the essential level of the professional competencies of border guard officers to perform the tasks particularly the necessary intellectual and moral qualities

(memory, attention, will, perseverance, organization, responsibility, determination, self-control, neuro-psychic stability, etc.).

The important prerequisite for the formation of the organizational abilities of students and cadets is their active involvement into the activities of formative, developmental and educational influence, which is provided at all the training courses in the system of professional training. The evidence has confirmed that all these measures of educational influence contribute to the development of the volitional organization of personality of students and cadets, forming such personality traits as self-control, perseverance, independence, responsibility, determination, organization, endurance and many others.

The program is based on the special system of the organizational abilities formation and development at the different stages of professional development.

1. Program of Formation and Development of the Organizational Abilities of Students and Cadets of the NASBGSU

The purpose of the program is to ensure the determined and comprehensive development of personal qualities that are part of the organizational capabilities and necessary for the proper implementation of the moral and psychological support of the professional activities of the subordinate personnel by the border guard officer. According to the purpose of the program there are two tasks to be solved namely: 1) development of the general abilities and 2) development of the specific organizational abilities of students and cadets of the I NASBGSU.

While working out the program we have taken into our account the fact that the main qualities of the organizational abilities related to the emotional and willful sphere of personality of the border guard officers are the following:

– *demanding attitude, perseverance* (officers who have the proper level of these qualities are characterized by courage, flexibility in communication, using the various forms of prompting, from jokes to orders, the individual approach to the personnel depending on the permanent and temporary mental characteristics (1); the ability to motivate subordinate personnel, to activate their professional activities and create a positive atmosphere in the unit;

– *critical approach, self-criticism, personality determination* – the ability to analyze deviations from the norm of the professional activity and behavior of other people, which is expressed in independence while conducting a critical analysis together with the personnel of the particular unit; logical and reasonable approach to critical remarks, courage, and respect for subordinates, kind and amiable attitude;

– *neuro-psychic stability* – the ability to withstand the strong negative emotional influences that may cause high mental stress. The importance of this factor is due to extraordinary emotional intensity of border guard officers' professional management, which activates the role of the emotional regulatory mechanisms in the structure of a leader's personality especially in the case of the extraordinary situations that force the leader to find the optimal solutions on problem-solving aspects on border protection;

– *practical psychological mind* (intelligence) – the ability of an officer to distribute tasks depending on the individual characteristics and abilities of the personnel;

– *ability to regulate one's mental state* depending on the conditions of professional activity and taking into account the dynamics of group processes in the unit, the peculiarities of relationships between subordinate staff during the organization, support and control of the professional activity.

The following components have been taken into our consideration within the investigation of the special organizational skills:

– *communication skills* of the manager (personal quality that manifests itself in the ability to make contacts, communicate). In the study, we considered that the communicative abilities of the leader influence the degree of success of the use of verbal and non-verbal communication;

– *psychological acumen* – quick understanding of psychological characteristics and condition of other people, the ability to remember people and their actions, a tendency to psychological analysis of the behavior and actions of subordinate personnel as well as their own behavior, deep faith and belief in the strength, capability and capabilities of the subordinate personnel;

– *psychological tact* – the ability to influence other people, to communicate with them taking into account one's individual, age

and gender characteristics; the ability to deal with difficult and embarrassing situations carefully and without doing or saying anything that will annoy or upset other people⁵ (Hornby, 2005 p. 1561).

– *inclination to organizational (managerial) activity*, (spontaneous, independent role in organizational activity; ability to take on the role of organizer and responsibility for the activity of personnel in difficult and unfavorable conditions;

– *independence, self-control* – the ability to engage in organizing activities, the need to carry out organizational activities and constant willingness to take on it, receiving positive emotions from its implementation.

The first part of the program, based on the practical training, consists of two blocks: 1) the development of typological characteristics of nervous system and volitional organization of one's personality; 2) the development of the cognitive sphere of one's personality.

The exercises of the first block are multi-purpose; they are aimed at forming both – the typological and volitional qualities. At the same time this process is carried out in three directions: 1) mastering the methodology of self-regulation and self-management; 2) solving simulated professionally oriented problematic tasks; 3) training of psychological stability. The total number of physical training hours (315), firing training hours (362) and tactical training (142) hours is 819.

The second part of the program consists of three blocks and promotes the development of certain psychological properties of the border guard officer's personality: 1) block I of the program (for border guard officers) is presented by "Managerial course for increasing the level of managerial competence of border guard officers; 2) block II was designed for students of the Faculty of Leadership Training and 3) block III was worked out for the cadets of all the faculties.

⁵ Hornby A. S. (2005). Oxford Advanced Learner's Dictionary, Oxford University Press, the Seventh Edition.

2. Verification of the Program Effectiveness

In order to check the effectiveness of the program we conducted the study of the level of the organizational abilities development of the personnel of the NA of SBGSU at the end of 2017.

252 officers, 125 students of the faculty of management training, 1061 cadets of all the faculties of the academy were involved into the experiment. The results of the survey are presented in Table 1.

Table 1

Level of Organizational Abilities Formation of the NASBGS Personnel (2017)

Faculty	Number of persons	Personnel	Number (%) of persons at the appropriate level						Rating of organizational abilities
			sufficient ≥ 0,61		average 0,41–0,6		low ≤ 0,4		
			number	%	number	%	number	%	
1	28	Permanent personnel	21	75,00	7	25,00	0	0,0	0,76
2	108		95	87,96	10	9,26	3	2,78	0,80
3	52		39	75,00	12	23,08	1	1,92	0,76
4	25		18	72,00	7	28,00	0	0,00	0,75
5	39		31	79,49	7	17,95	1	2,56	0,77
Total	252		204	80,96	43	17,06	5	1,98	0,78
1	125	Variable personnel	111	88,89	14	11,22	0	0,0	0,81
2	412		156	37,87	200	48,54	56	13,59	0,59
3	353		194	54,96	99	28,04	60	17,00	0,65
4	159		94	59,12	37	23,27	28	17,61	0,66
5	137		89	64,96	14	10,22	34	24,82	0,66
Total	1061*		533*	50,24*	350*	32,98*	178*	16,78*	0,63*

1. The data of the final line in the table is formed in relation to the faculties (only for the cadets). The comparison of the obtained results with the previous ones proved that 80.96% of the interviewed respondents had the developed organizational abilities at the proper level, which is almost 40% more than the previous results. As for the cadets there is 26.39% increase of the level of the organizational abilities. The moderate increase may be due to the fact that the 2014 survey included only senior cadets who have more experience in the organizational activity than junior cadets. The statistical verification was performed using Pearson's nonparametric criterion χ^2 ⁶ (Sidorenko, 2000, p. 113), the statistical hypotheses are constructed as follows:

1) the basic hypothesis: H_0 – the shares of the cadets who have the appropriate level of the organizational abilities do not differ among the respondents of 2014 and 2017;

2) the alternative hypothesis: H_1 – the share of cadets with the appropriate level of organizational skills is significantly different among the respondents of 2014 and 2017.

The empirical value of the criterion was calculated using a specially created software product in EXCEL. We then compared it with the critical values for degrees of freedom

$$\nu = (k - 1) \cdot (c - 1) = (3 - 1) \cdot (2 - 1) = 2$$

$$\chi_{\text{кр}}^2 = \begin{cases} 5,991 & (p \leq 0,05) \\ 9,210 & (p \leq 0,01) \end{cases} \quad (1.1)$$

It should be noted that all the limitations of this criterion have been met: the sample size is large enough; the number of character signs (levels) is greater than

The calculated value of the criterion (Table 2) turned out to be higher than the critical one for all samples, which allows us to accept the statistical hypothesis H_1 about the significance of differences between the groups of respondents at least 0.01 (probability of error does not exceed 1%). This, in turn, indicates the effectiveness of the suggested method.

⁶ Sidorenko E. V. (2000). *Metody matematicheskoy obrabotki v psihologii* [Methods of Mathematical Processing in Psychology]. SPb.: Rech Publ. [in Russian].

Table 2

Dynamics of organizational skills formation (statistical check)

Faculty	Number of people at the appropriate level	Permanent personnel		Variable personnel	
		2014	2017	2014	2017
1	Sufficient $\geq 0,61$	11	21	24	111
	Average $0,41 - 0,6$	20	7	13	14
	Low $\leq 0,4$	1	0	1	0
Empirical value of criterion χ^2_{emn}		10,1628		14,918	
2	Sufficient $\geq 0,61$	59	95	20	156
	Average $0,41 - 0,6$	60	10	67	200
	Low $\leq 0,4$	4	3	25	56
Empirical value of criterion χ^2_{emn}		43,482		17,0335	
3	Sufficient $\geq 0,61$	28	39	21	194
	Average $0,41 - 0,6$	33	12	31	99
	Low $\leq 0,4$	2	1	8	60
Empirical value of criterion χ^2_{emn}		10,9877		13,4324	
4	Sufficient $\geq 0,61$	12	18	8	94
	Average $0,41 - 0,6$	24	7	16	37
	Low $\leq 0,4$	2	0	6	28
χ^2_{emn}		10,2777		13,1393	
5	Sufficient $\geq 0,61$	13	31	3	89
	Average $0,41 - 0,6$	22	7	10	14
	Low $\leq 0,4$	2	1	3	34
Empirical value of criterion χ^2_{emn}		15,4136		30,2708	
Consolidated data	Sufficient $\geq 0,61$	123	204	52	533
	Average $0,41 - 0,6$	159	43	124	350
	Low $\leq 0,4$	11	5	42	178
Empirical value of criterion χ^2_{emn}		86,3323		56,0283	

In order to check whether changes in the formation of the special organizational abilities of the respondents took place, the specialists of the department of psychological support conducted the additional survey of the respondents. The results of which are presented in Table 3.

Table 3

**Level of Special Organizational Abilities Formation
of NASBGS personnel (2017)**

Faculty	Number of persons	Permanent staff		Number of persons	Variable staff	
		Number of persons with the special organizational skills	%		Number of persons with the special organizational skills	%
1	28	5	17,86	125	8	6,4
2	108	10	9,26	412	37	8,98
3	52	9	17,31	353	28	7,93
4	25	7	28,0	159	23	14,46
5	39	8	20,51	137	28	20,44
Total	252	39	15,48	1061*	116*	10,93*

The final line data for the variable personnel is given only for the cadets of all the faculties.

The results of the analysis of these figures shows that the proportion of the respondents with the special (organizational) abilities has increased from 6.48% to 15.48% among permanent staff, and from 3.67% to 10.93% among cadets.

The statistical check of the significance of the difference was carried out by means of the nonparametric criterion φ^* , namely by means of angular transformation of Fisher⁷ (Sidorenko, 2000, p. 158), the statistical hypotheses are constructed as follows:

– The basic hypothesis: H_0 – the proportions of the persons having the special organizational abilities for the specified groups do not differ;

– The competing hypothesis: H_1 – the proportions of persons with the special organizational skills for these groups differs significantly.

⁷ Sidorenko E. V. (2000). *Metodyi matematicheskoy obrabotki v psihologii* [Methods of Mathematical Processing in Psychology]. SPb.: Rech Publ. [in Russian].

The empirical value of the criterion is calculated by the formula

$$\varphi_{emn}^* = (\varphi_1 - \varphi_2) \sqrt{\frac{n_1 \cdot n_2}{n_1 + n_2}}, \quad (1.2)$$

where φ_1 is the angle corresponding to the larger percentage; φ_2 is the angle of the smaller percentage; n_1, n_2 is the number of people in groups.

The empirical value of the criterion was compared with the critical values of the corresponding level of statistical significance:

$$\varphi_{kp}^* = \begin{cases} 1,64 (p \leq 0,05) \\ 2,31 (p \leq 0,01) \end{cases}. \quad (1.3)$$

The calculated empirical values (Table 6.7) of the criterion made it possible to confirm the validity of the competing statistical hypothesis regarding statistically significant differences between the respondents of the years 2014 and 2017.

Table 4

Dynamics in Change of the Special Organizational Abilities Formation (statistical check)

Faculty	Groups (number of persons)	Permanent staff		Groups (number of persons)	Variable staff	
		Number of persons who have special organizational skills	%, % part		Number of persons who have special organizational skills	%, % part
1	2014 (32 persons)	3	9,37% 0,623	2014 (38 persons)	1	2,63% 0,324
	2017 (28 persons)	5	17,86% 0,874	2017 (125 persons)	8	6,4% 0,512
φ_{emn}^*		0,970 $\rho \leq 0,10$		φ_{emn}^*		1,015 $\rho \leq 0,10$

End of Table 4

1	2	3	4	5	6	7
2	2014 (123 persons)	4	3,25%	2014 (112 persons)	5	4,46%
			0,365			0,428
	2017 (108 persons)	10	9,26%	2017 (412 persons)	37	8,98%
			0,620			0,606
$\varphi^*_{\varepsilon mn}$		1,93 $\rho \leq 0,026$		$\varphi^*_{\varepsilon mn}$	1,67 $\rho \leq 0,047$	
3	2014 (63 persons)	4	6,35%	2014 (60 persons)	1	1,67%
			0,512			0,262
	2017 (52 persons)	9	17,31%	2017 (353 persons)	28	7,93%
			0,858			0,570
$\varphi^*_{\varepsilon mn}$		1,85 $\rho \leq 0,032$		$\varphi^*_{\varepsilon mn}$	2,21 $\rho \leq 0,013$	
4	2014 (38 persons)	5	13,16%	2014 (30 persons)	1	3,33%
			0,744			0,365
	2017 (25 persons)	7	28,0%	2017 (159 persons)	23	14,46%
			1,115			0,781
$\varphi^*_{\varepsilon mn}$		1,44 $\rho \leq 0,075$		$\varphi^*_{\varepsilon mn}$	2,09 $\rho \leq 0,018$	
5	2014 (37 persons)	3	8,11%	2014 (16 persons)	1	6,25%
			0,577			0,507
	2017 (39 persons)	8	20,51%	2017 (137 persons)	28	20,44%
			0,940			0,937
$\varphi^*_{\varepsilon mn}$		1,58 $\rho \leq 0,057$		$\varphi^*_{\varepsilon mn}$	1,63 $\rho \leq 0,053$	
Consolidated data	2014 (293 persons)	19	6,48%	2014 (218 persons)	8	3,67%
			0,516			0,387
	2017 (252 persons)	39	15,48%	2017 (1 061 persons)	116	10,93%
			0,809			0,673
$\varphi^*_{\varepsilon mn}$		3,41 $\rho \leq 0,001$		$\varphi^*_{\varepsilon mn}$	3,85 $\rho \leq 0,001$	

The most significant changes were observed among the respondents of the 1st Faculty, where at the beginning of the study, in 2014 the highest level of the organizational abilities was determined.

The significance of the changes for each faculty varies within 5–7% of the error, while for the consolidated data the significance is undeniable; the probability of error is less than 1%.

It was also verified that statistically significant changes in the management styles among the permanent personnel (Table 1) and the stress resistance level and adaptive capacity among the variable personnel (Table 5).

Table 5

Dynamics of Changes in Management Styles Among Permanent NASBGS Personnel (2017)

Faculty	Number of persons	Number (%) of persons with the stated management style									
		9, 1. authoritarian		1, 9 liberal		5, 5 compromise		9+9 paternalizm		9, 9 collaborative	
		number	%	number	%	number	%	number	%	number	%
1	28	5	17,86	3	10,71	7	25	6	21,43	7	25,0
2	108	7	6,48	14	12,96	18	16,67	26	24,07	43	39,82
3	52	6	11,54	7	13,46	8	15,39	7	13,46	24	46,15
4	25	3	12,0	6	24,0	9	36,0	3	12,0	4	16,0
5	39	8	20,51	5	12,82	11	28,21	7	17,95	8	20,51
Total	252	29	11,51	35	13,89	53	21,03	49	19,44	86	34,13

The statistical verification was performed using the same nonparametric criterion φ^* – Fisher angular transformation⁸ (Sidorenko, 2000, p. 158). The statistical hypotheses are formulated as follows:

⁸ Sidorenko E. V. (2000). *Metodyi matematicheskoy obrabotki v psihologii* [Methods of Mathematical Processing in Psychology]. SPb.: Rech Publ. [in Russian].

The basic hypothesis: H_0 – the proportions of persons having the appropriate leadership style do not differ for the identified groups;

The competing hypothesis: H_1 – the proportions of persons having the appropriate leadership style differ significantly for these groups.

The empirical value of the criterion was calculated by the formula (1.2) and then we compared it with the critical values of the corresponding level of statistical significance (1.3). Further according to Table XIII9 (Sidorenko, 2000, p. 332) the level of statistical significance in the case of the least significant differences was determined.

The empirical values of the criterion (presented in Table 6) confirm the validity of the competing statistical hypotheses concerning the differences between the 2014 and 2017 group respondents.

Table 6

Dynamics of Change in Leadership Styles (Statistical Verification)

Faculty	Groups (number of persons)	9,1 authoritarian	1,9 liberal	5,5 compromise	9+9 paternalizm	9,9 collaborative
1	2	3	4	5	6	7
1	2014 (32 persons)	12	3	4	10	3
		37,5%	9,38%	12,5%	31,25%	9,38%
	2017 (28 persons)	5	3	7	6	7
		17,86%	10,71%	25%	21,43%	25%
φ_{em}^*		1,72	0,166	2,82	0,87	1,64
$\rho \leq$		0,043	-	0,001	-	0,050
2	2014 (123 persons)	21	18	14	41	29
		17,07%	14,63%	11,38%	33,33%	23,57%

⁹ Sidorenko E. V. (2000). *Metody matematicheskoy obrabotki v psikhologii* [Methods of Mathematical Processing in Psychology]. SPb.: Rech Publ. [in Russian].

End of Table 6

<i>l</i>	2	3	4	5	6	7
	2017 (108 persons)	7 6,48%	14 12,96%	18 16,67%	26 24,07%	43 39,82%
	φ_{em}^*	2,55	0,35	1,16	1,55	2,68
	$\rho \leq$	0,004	-	-	0,061	0,003
3	2014 (63 persons)	13 20,64%	7 11,11%	10 15,87%	15 23,81%	18 28,57%
	2017 (52 persons)	6 11,54%	7 13,46%	8 15,39%	7 13,46%	24 46,15%
	φ_{em}^*	1,33	0,39	0,07	1,42	1,95
	$\rho \leq$	0,092	-	-	0,078	0,026
4	2014 (38 persons)	10 26,32%	8 21,05%	5 13,16%	12 31,58%	3 7,89%
	2017 (25 persons)	3 12,0%	6 24,0%	9 36,0%	3 12,0%	4 16,0%
	φ_{em}^*	1,44	0,27	2,11	1,89	0,98
	$\rho \leq$	0,075	-	0,017	0,029	-
5	2014 (37 persons)	13 35,14%	4 10,81%	2 5,40%	15 40,54%	3 8,11%
	2017 (39 persons)	8 20,51%	5 12,82%	11 28,2%	7 17,95%	8 20,51%
	φ_{em}^*	1,45	0,27	2,84	2,20	1,58
	$\rho \leq$	0,07	-	0,001	0,014	0,057
Consolidated data	2014 (293 persons)	69 23,55%	40 13,65%	35 11,95%	93 31,74%	56 19,11%
	2017 (252 persons)	29 11,51%	35 13,89%	53 21,03%	49 19,44%	86 34,13%
	φ_{em}^*	3,76	0,11	2,85	3,31	3,98
	$\rho \leq$	0,001	-	0,001	0,001	0,001

The empirical criterion values obtained for the consolidated data make it possible to state with the sufficient level of reliability (the error

probability less than 1%) that the statistically significant changes in the leadership styles have occurred among the permanent staff of the NASBGSU (except for the liberal leadership style). The results of the analysis of the data confirm that the authoritarian style of leadership elects a much smaller number of persons: 11.51%, whereas in 2014 this figure was 23.55%. There is significant increase in the proportion of the officers with the collaborative style: from 19.11% to 34.13%.

The experts from the Psychological Support sub-department of the Human Resources Department also conducted the psycho-diagnostic examination using the multi-level Adaptability Questionnaire at the end of 2017. The total number of 125 officers and 980 cadets were enrolled. The results of the cadets' survey are presented in Table 7. As well as in the previous study, it was found out that all the students of the 1st Faculty were sufficiently emotionally resilient. 81 cadets among the examined ones demonstrated the increased level of regularity and the slightly reduced level of adaptive capacity. The obtained result means that only 8.26% of cadets may not respond adequately to events in the critical professional situations.

Table 7

**Statistical Verification of Respondents' Homogeneity
by the Stress Resistance Level**

Groups (according to the year)	Number of persons	Number of persons with the higher rigidity level (lower adaptive capacity)	% and % proportion	φ_{em}^* Significance level % of error
2014	218	28	12,84% 0,732	$\varphi_{em}^* = 1,98$ $\rho \leq 0,023$ 2,3%
2017	980	81	8,26% 0,584	
Total	1 198	109		

The results of the qualitative analysis of the obtained data show that the purposeful activity resulted in the decrease in the proportion of

the persons with the reduced levels of stress resistance from 12.84% to 8.26%.

The empirical value of the criterion was calculated by the formula 1.3:

$$\varphi_{emn}^* = (0,732 - 0,584) \sqrt{\frac{218 \cdot 980}{218 + 980}} = 1,98$$

We compared it with the critical one, which suggested that there were the significant differences between the respondents of the years 2014 and 2017 regarding the number of people with the reduced levels of stress resistance and the proper level of the organizational abilities. The error probability is no more than 2.3%.

CONCLUSION

The results of the analysis of the problem of the border guard officers' professional competence indicate that the structure of their organizational abilities is determined by the specificity of their professional activity.

Having analyzed the psychological peculiarities of the border guards' professional activity which is performed in the specific and extreme conditions we have determined the components of such activity. They are the following: the cognitive (gnostic), constructive, organizational and communicative components. Each component is typical of performing the certain functions and responsibilities.

The theoretical analysis and empirical data of our study confirmed the point of view that the organizational activity of a border guard officer is a multi-aspect and extremely complex part of individual's professional activity, which indicates that the proper level of the development of the organizational abilities is of vital importance and the essential precondition for the professional suitability of a border guard officer.

The program has been designed for solving two tasks in the system of professional training at the NASBGSU, particularly 1) the development of the general organizational abilities; 2) the formation of the specific organizational abilities of the students and cadets. The proper organizational abilities level of the border guard officer is the

essential part of the necessary level of his/her professional competence, i.e. to carry out duties up-to-the level.

The first part of the program, which involves the practical training, consists of two blocks: the development of the typological characteristics of the nervous system and volitional organization of one's personality; the development of the personality cognitive sphere. The second part of the program consists of three blocks and contributes to the development of certain psychological properties of the border guard officer's personality.

The results of the analysis of the data obtained as a result of the very realization of the program have shown that 80.96% of the respondents had the developed organizational abilities at the sufficient level, which is almost 40% more than the previous results. The proportion of the respondents with the specific abilities has increased from 6.48% to 15.48% among the permanent personnel and from 3.67% to 10.93% among the cadets. The statistically significant changes in the leadership styles have occurred among the permanent personnel of the academy. Thus, the number of persons who prefer the authoritarian style of leadership decreased from 23.55% in 2014 to 11.51% in 2017. Instead, there is a clear increase in the proportion of the officers with a collaborative style: from 19.11% to 34.13%.

The results of the investigation of the program of the formation and development of the organizational abilities of students and cadets of the National Academy of State Border Guard Service of Ukraine named after Bohdan Khmelnytskyi have testified its effectiveness.

SUMMARY

The article deals with revealing the results of the investigation of the program of the purposeful development of the organizational abilities of the students and cadets of the National Academy of the State Border Guard Service of Ukraine named after Bohdan Khmelnytskyi. The program has been worked out on the basis of the results of the theoretical analysis of the border guard officers' professional activity peculiarities and empirical data of the research of the organizational activity as a component of the necessary level of the professional competence.

The results of the study indicate that the program developed by the author is effective. Therefore, the hypotheses of the study are confirmed, the objective of the study has been achieved.

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Information about the author:

Olena Volobuieva

Doctor of Sciences in Psychology, Professor,
Academic Research Deputy Rector,
National Academy of the State Border Guard Service of Ukraine
named after Bohdan Khmelnytskyi
46, Shevchenko str., Khmelnytskyi, 29003, Ukraine
ORCID ID: orcid.org/0000-0003-4010-6398
E-mail: helen_volobueva@ukr.net

PSYCHOLOGICAL READINESS OF BORDER GUARDS TO TAKE RISKS IN THEIR PROFESSIONAL ACTIVITIES

Mykhailo Tomchuk

INTRODUCTION

Modern professional activity of military personnel of the State Border Guard Service of Ukraine is risky because it is accompanied by a variety of situations that threaten to preserve their health, and sometimes even life. Performing service duties at the border often requires the person to take operational decisions, to resolve problematic situations quickly and demands risky behavior. The success of a border guard-officer's professional activities in special, extreme conditions depends on his/her psychological readiness for risk. Such readiness should be formed during the cadets' training at the National Academy of the State Border Guard Service of Ukraine (NASBGSU). The indicator of the level of its formation is the service results, the duration of young officers' adaptation to professional activities at the state border, their ability to take thoughtful, optimal, quick decisions in risky conditions. As practice shows, in the conditions of real professional activities at the border, in dangerous and extreme situations the graduates of the Academy quite often manifest destructive personal states: instability, impulsiveness, anxiety, aggressiveness and others that should be overcome quickly and effectively.

The analysis and generalization of the results of scientific developments on the problem of person's risk leads to the conclusion about the insufficient level of its solution at the psychological level, a certain fragmentation of the solution, the lack of studies of special features of risky behavior manifestation in the professional activities of border guards, the prediction of its expressiveness and consequences depending on their age, service term, etc.

Due to the abovementioned facts, it is relevant to study this problem at both theoretical and experimental levels.

1. Theoretical and psychological analysis of a person's risk as a phenomenon

The study of risk as a person's psychological phenomenon necessarily involves understanding its objective and subjective nature. Today in psychology there is no conventional and agreed approach to understanding the concept of "risk", its conceptual and operational content.

A considerable number of researchers believes that the environment of risk manifestation is some objectively existing uncertainty, which creates a situation of unpredictability of events, spontaneity of phenomena, limited resources in planning and implementing decisions. Yu. Kozeletskyi^{1,2} believes that the most typical sign of risky behavior is some uncertainty of the results that will be obtained by the person who shows such behavior. In psychological researches, there are several areas of risk study and its interpretation: risk as a degree of failure; risk as a situation of choosing options for actions; risk as an assessment of a subject's situational activity and the uncertainty of its outcome (Kozeletskyi, 1979; Ilyin, 2012).

The main characteristics of risk as a manifestation of human freedom in relation to the objective situation and their own internal subjective qualities. The author defines risk as activity:

1. Risk is an activity performed by a subject despite the perceived risk of a failure.

2. Risk is an activity in which a person still counts on success in an ambiguous situation. Therefore, it must be subjectively armed with the hope of achieving the goal. Otherwise, its activities may not be considered risky but adventurous.

3. Risk is an activity with the conscious (or even, despite the conscious) possibility of a permissible error in the activity itself after achieving its goal.

4. Risk is an image of actions in an unclear, uncertain situation, when it is difficult to choose a very definite and unambiguous variant of behavior, but it is impossible to delay the action choosing for one reason or another (objective or subjective). That is, risk is an action in

¹ Kozeletskyi, Yu., (1979). *Psychological theory of solutions*. Moscow: Progress.

² Ilyin, Ye., (2012). *Psychology of risk*. SPb.: St. Petersburg.

a situation where one cannot act. Therefore, a person is forced to “free” himself from the characteristics of an objective situation and his own subjective readiness for action.

5. Risk is a situational characteristic of an activity that a person performs in the hope of success in the context of lack of preparedness and confidence in achieving the goal.

The optimal strategy for behavior in an uncertain situation is free choice. Therefore, the subject tries to create and maintain such an opportunity. So, it will be fair to see an essential characteristic of human activity in the risk.

The person’s dominant characteristic in the context of risk is the “search for sensation”. There are four elements in this personal aspect: the search for thrills and adventures; search for experience; excessive activity; tendency to be bored. There is a link between the search for sensation and certain types of risky behavior, such as risky financial decision making, high gambling rates, participation in dangerous sports, socially dangerous behavior and reckless driving. One explanation for the connection that exists between “sensation seeking” and risky behavior is the tendency to reduce risk.

Risk is defined as the activity (actions) of an individual aimed at obtaining the desired result by avoiding danger, making a choice with the hope of success in a situation with a possible inauspicious result, receiving rewards, affirmation in the eyes of others or self-affirmation, trying to expand the limits of his own capabilities, achieving the goals or the realization of the desire to get a thrill. The result of such activity is always uncertain and may be unfavorable, i.e. accompanied by loss, damage, trauma, etc.

Ye.P. Ilyin³ identifies risk with strong-willed qualities: courage, daring, determination, etc. (Iliin, 2012).

K. K. Platonov believes that risk is an appeal to an activity in the absence of confidence in achieving its goal. V.A. Petrovskiy⁴ assumes that risk has a pragmatic tendency related to the calculation of the chances for success (for the sake of approval, money, career, etc.) (Petrovskiy, 1974).

³ Ilyin, Ye., (2012). *Psychology of risk*. SPb.: St. Petersburg.

⁴ Petrovskiy, V., (1974). *Human behavior in situations of danger (to the psychology of risk)*. *New researches in psychology*, (1), p. 23–24.

Other scientists⁵ define risk as a measure of expected well-being in failure; as a deed or action that threaten the entity to lose something; as a decision making, i.e. a choice between options for actions (which are safer, more attractive) (Petrovskiy, Yaroshevskiy, 1990, p. 308–309).

In the theory of Aisenko's⁶ personality (H. Aisenk, M. Aisenk, 2001), risk is the identical desire for thrills or impulsivity and is a constitutional property of the individual. In our opinion, risk should be considered as a complex phenomenon related to the subject's behavior in a dangerous situation when the outcome of the action is determined by the decision. If the decision choice depends entirely on the subject, a dangerous situation becomes a risky situation.

According to V. Petrovskiy⁷, there is even such a special form of risk as “risk for the sake of risk”, which is characterized by the tendency of the subject to approach danger in situations without any external necessity. Such behavior can be considered even as a type of personal disorder and characterize a person's ability to assess his own capabilities adequately (Petrovskiy, 1974, p. 77).

It can be concluded that the risk involves the danger presence that functions as certain uncertainty, the need to choose an alternative way out of it, the ability to assess the probability of its implementation. Border guards often have to take risks: both to take decisions independently in dangerous situations of professional activity and to get into them due to different circumstances – a necessary risk. After all, they have to act very often in the conditions of uncertainty, lack of complete and reliable information, false or excessive information, in situations of high dynamics of events, suddenness, unexpectedness of their occurrence, etc.

On the one hand danger is a component of risk and may be perceived by a serviceman to a different extent, on the other hand, it is an objective factor and the result of the influence of external negative factors (for example, border violations, natural disasters, conflicts

⁵ Petrovskiy, A., Yaroshevskiy, M. (Eds.). (1990). *Short Psychological Dictionary*. M.: Politizdat.

⁶ Aisenk, H., Aisenk, M. (2001). *Research of the human psyche*. M.: EKSMO-Press.

⁷ Petrovskiy, V., (1974). *Human behavior in situations of danger (to the psychology of risk)*. *New researches in psychology*, (1), p. 23–24.

among citizens of the border area, etc.). Danger is not equivalent to the concept of risk. It exists objectively, by itself and at some point it is not associated with risk, it is a category of reality that exists outside and beyond the consciousness of a person. Risk as a phenomenon of psychology, is always subjective, because it acts as a fact of human consciousness, his evaluation of action, rational decision making taking into account the choice of one of several possible alternatives. To some extent the risk reduces the situation uncertainty, but the factors that gave rise to it still remain. The uncertainty sources may be: certain limitations in activity, lack of resources in decision making and their implementation; relativity of the person's process of the surrounding reality cognition; impossibility of unambiguous knowledge of the object; certain limitations of conscious activity, differences in psychological attitudes, ideals, intentions, assessments, stereotypes of human behavior, etc.

Risky behavior is often manifested in extreme situations, when several unfavorable for a person conditions and harmful factors coincide, and which, as a rule, require the protection of his life and health, his physical and spiritual forces. An extreme situation is considered as a set of external conditions of human activities. Its characteristics are environmental conditions of threats and dangers.

Risk is also a driving force, a contradiction for the dynamic development of the person. In this context, it is important to study the phenomenon of "risk" in the psychological aspect, the mechanisms of risk course, indicators, the ability to take risks. Their absence or insufficiency leads to inadequate assessment of external situations and causes unreasonable risk. The ability to take risks is the ability to combine the initiative and sobriety of the mind, which mean readiness to give preference, to achieve better results than ever. A person who is able to take risks must be psychologically prepared to make effective use of all available resources; to be able to plan his actions.

However, in our opinion, there is a certain ambiguity in the interpretation of "capable of risk", since the term "ability" is used to assimilate the activity and the positive result of its implementation. It is more correct to apply the concept of readiness to risk. A destructive form of risk leads to unreasonable risk, to voluntarism and deviant behavior (risk as a destabilizing factor).

The factors that determine the uncertainty in the activities of extreme activity representatives are presented⁸ (S. Tomchuk, O. Dobrianskyi, 2013). In our opinion, the extreme activity of border guards is created not by the physical factors of the environment, but by the constantly acting emotional factors. The latter should include not only time deficiency, intellectual overload associated with excess or deficiency of information, but also constant increased service and moral responsibility for taken decision, psycho-emotional tensions, etc. It is worth considering the fact that in the professional activity the border guard faces antisocial, unlawful acts of persons, citizens of border areas, who also affect his psyche. All this causes a constant load on him, professional burnout of the person. Extreme situations that arise in the activities of border guards have their specific psychological content, manifest themselves in certain forms and can be classified in some way by indicators (S. Tomchuk, Dobryanskiy, 2013):

Transience. The activities of the border guard occur in severe time deficiency with maximum mental load of personality, in his readiness for immediate actions at an exceptionally fast pace. This type of situation is characterized by unexpectedness, the novelty of its individual elements, the speed of occurrence, lack and contradiction of information, the intense functioning of thinking, the transience of mental processes. The main factor in this situation is the suddenness, so it is of great importance that the border officer has the appropriate experience and skills.

Duration. The effective activity of the state border guard in a long-term situation requires stable motives of activity, mental endurance, high mobilization, responsibility, independence and other qualities.

The situation with the element of uncertainty. In this situation, the border guard faces the problem of choosing the only right solution from several possible and equally significant ones. The situations with uncertain components are characterized by the absence or contradiction of information. In solving various problems, adequate motivation, emotional sustainability, high professional training and intellectual capacity become crucial in this situation.

⁸ Tomchuk, S., Dobrianskyi, O. (2013). *Psychological readiness of investigators for professional activities*. Vinnytsia: VOIPOP.

A situation that requires readiness for emergency actions. The activity of the border guard in this situation requires a high level of vigilance, speed of mental processes switching, emotional sustainability.

A situation that combines unexpectedness and lack of time is characterized by the need to make the right decision immediately, a high degree of personal responsibility for the taken decisions and actions, the immediate manifestation of the results.

The situation with the receipt of false information. It usually occurs when misinformation is received. It is characterized by the dependence of the number of erroneous decisions and actions on the availability of time and the experience of the military man.

The situation of the “dominant state”. It is conditioned by the possibility of complete absorption of attention by any type of activity. It is expressed in the fact that in such a “dominant state” the border guard reacts poorly to other influences, signals and commands, which can lead to negative consequences. It is necessary to use very strong stimuli or warning signals that can bring him out of this “absorption” state.

Critical situation provides an alternative choice of possible activity outcomes: victory or complete psychological defeat. In a critical situation, a person’s individual characteristics as well as his main socio-psychological qualities and adaptation capabilities are revealed.

The existence of the subject’s uncertainty is due to the incompleteness and insufficiency of information about the object, process, phenomenon to be decided; limitations of the individual in the process of gathering and processing information; with the constant variability of information on many objects and the need to use the “trial and error” method sometimes. However, sources of uncertainty are usually contained within the subject himself, they are individual, and the person takes into account the factors that influence or may influence the success of the activity.

An objective approach to understanding the nature and manifestations of risk focuses primarily on the randomness of the results and the associated negative consequences and does not take into account the personality and variability of personal factors in the risk situation. The subjective approach, while focusing on the assessment of the hazard, the choice of specific behavior, rejects the objective sources of the situation of danger and uncertainty.

Thus, Ye. Iliin⁹ believes that risk, as a psychological phenomenon, includes the situation of risk, risk assessment, the degree of its awareness by risk subjects, risk factors, the situation of choice, risk limits and risk zone (Iliin, 2012, p. 67). It most often identifies four major risk functions: protective, analytical, innovative, regulatory. The protective function of risk is manifested in the fact that the risk is a normal condition for the subject, so it is necessary to form a rational attitude to failure. The analytic function is related to the necessity to choose one of possible solutions. An innovative function is to stimulate the search for unconventional problem solutions. The regulatory function is controversial and has two forms: constructive and destructive.

In the researches on risk psychology, the most commonly used concepts are “risk object”, “risk group”, “risk factor”, “risk zone” and others. However, these concepts are the prerogative of the social aspect rather than the psychological one, since they do not imply the subjective choice of available alternatives but the existence of dangerous, uncertain situations existing in the society, to which the person is involved for various reasons. It is also important to note that in everyday life, there are actions, activities that are recognized by society as dangerous and a person either avoids them in view of human experience or is ready to accept them.

An object of risk can be represented as an object or phenomenon that actually exist and carry a potential danger to the human individual. Ye. P. Ilyin (2012) identifies a risk factor as conditions (circumstances) that are not direct sources of undesirable results occurrence, but increase the probability of their occurrence¹⁰. Depending on their probability, the author identifies high, moderate, and low risk factors. It is necessary to distinguish between subjective and objective determinants of risk and its factors. The content of the concept of “objective risk factors” can be interpreted as the inability of the person to influence and change external unfavorable circumstances. In other words, objective risk factors are functions of phenomena that do not depend on human consciousness and are associated with unfavorable

⁹ Ilyin, Ye., (2012). *Psychology of risk*. SPb.: St. Petersburg.

¹⁰ Ilyin, Ye., (2012). *Psychology of risk*. SPb.: St. Petersburg.

features of situations and conditions of their realization. Risk subjectivity can be represented as certain misdeeds that are directly dependent on the subject, the person.

“Risk group” means a particular community that is in a dangerous situation, which is determined by one or more factors. In addition to the peculiarities of human activity, risk involves the presence of conditions that negatively affect his life opportunities. In such conditions, the ability or inability of a person to resist risk factors are manifested¹¹ (Ilyin, 2012, p. 185).

The risk zone as a term should be used when this concept is identified with the concept of risk. You can talk about the danger zone only realizing it and deciding to act in it, only then the subject risks.

Risk situations arise only when a subject appears in the situation. However, a dangerous situation is not necessarily a risky situation. Risk in its objective form is not associated with the hazard. For different subjects acting under the same conditions, the situation may be different – risky for one person and non-risky for another one. It is important for the individual to understand the degree of risk. As we have revealed, the same situation is evident for border guards with more or less experience of service.

On the one hand, risk is focused on obtaining socially significant results in extraordinary, new ways in conditions of uncertainty and the situation of inevitable choice. On the other hand, risk can lead to adventurism, voluntarism, subjectivism.

It is important to study the characteristics of the readiness of the individual for risk in the professional activity of border guards. In modern researches, the notion of propensity as readiness to risk is more commonly used. Thus, T.B. Khomulenko (2011) and L.M. Absaliamov (2011) define a propensity to risk as a psychological property, which determines the psychological state of realization of habitual forms of behavior, caused by emotional intrinsic motivation – the need for thrills, and manifests itself in the priority emotional choice of the risky form of activity, spontaneously selected behavior in the conditions of uncertainty and potential threat¹². That is, the readiness for risk is

¹¹ Ilyin, Ye., (2012). *Psychology of risk*. SPb.: St. Petersburg.

¹² Khomulenko, T., Absaliamova, L. (2011). *Motivational, intellectual, and emotional components of risk psychology: an age dimension*. Kharkiv: KhNPU.

represented by the authors as a psychological trait that determines the psychological state of expectation of a significant external stimulus, caused by external meaningful motivation, and determines the deployment of a particular program, which corresponds to the developed ability to take decisions and act in conditions of uncertainty and potential uncertainty successfully.

In our opinion, in the context of an activity approach, risk is an act of a person's interacting with different factors of environmental reality, in the process of which he tries to achieve the goal consciously. At the same time, its peculiarities are manifested as risky decision making and preparedness for them, risky actions and awareness and assessment of their consequences. In the context of studying such an individual's readiness for risk, it is necessary to investigate the motivational, cognitive, emotional-volitional, connotative components of such readiness of border guards.

The analysis of psychological researches allows us to conclude that there are different ideas about risk readiness^{13, 14} (Diachenko, 1985; S. Tomchuk, O. Dobrianskyi, 2013). Readiness to risk is a kind of readiness for extreme actions, which in various studies is presented as a component of courage, as a propensity for risk, as the ability, as a manifestation of certain emotional and volitional qualities, etc. Risk readiness is the ability to take adequate decisions in the conditions of uncertainty and the readiness to control potential changes consciously through the implementation of one's own decisions, the ability to set goals that allow to test the one's capabilities, expand them, and go beyond situational constraints. For Yu. Kozeletskyi (1979), readiness to take risks embraces the qualities of courage¹⁵.

It is for the individuals who act in extreme conditions the propensity and readiness to risk are professionally important personal indicators. In the researches they use the definition of "risk ability", which refers to the potential and practical realization of the subject's ability to act successfully in dangerous situations with

¹³ Tomchuk, S., Dobrianskyi, O. (2013). *Psychological readiness of investigators for professional activities*. Vinnytsia: VOIPOP.

¹⁴ Diachenko, M., (1985). *Willingness in Tense Situations*. Minsk: University Publishing House.

¹⁵ Kozeletskyi, Yu., (1979). *Psychological theory of solutions*. M.: Progress.

uncertain results, and is defined by a set (individual, professional, etc.) of the qualities necessary for its implementation. The ability to take risks is analyzed as a position of inner fighting spirit, the desire to make every effort, the ability to take another step that a person did not take if guided by a sense of comfort, the ability to act always, at any point of his life. The notion of “risk taking” has a positive effect on professional development, and excessive caution, on the contrary, limits the ability of a person’s professional self-realization.

In the context of occupational risk-related activities, the role of typological features and properties of the nervous system is also emphasized. Ye. P. Ilyin believes that the major factor in these professions is experiencing the danger because of having a great deal of personal responsibility. Stressful situations lead to impaired sensory and mental activity¹⁶. The person does not perceive the situation adequately and accordingly taking wrong decisions, and sometimes even forgetting what is needed (Ilyin, 2012).

A person’s ability to act in a risky, extreme situation arises directly from the properties of his temperament, in particular from the properties of the nervous system strength. Psychologists associate the propensity to risk with extraversion and impulsiveness in activity.

Emergency readiness is analyzed as the ability to respond adequately and quickly to emergencies with uncertain timing and high probability of their occurrence. The person’s ability to act effectively in a risky situation is associated with such person’s traits as emotional stability, ability to plan and predict, self-control, ability to change attitudes, lack of conservatism, positive attitude and internal locus of control. The ability to respond effectively to risk is influenced by the level of personal anxiety and self-esteem¹⁷ (Kotik, 1989). Significant for the effectiveness of activity in risky conditions is the ability to self-regulate mental activity.

¹⁶ Ilyin, Ye., (2012). *Psychology of risk*. SPb.: St. Petersburg.

¹⁷ Kotik, M., (1989). *Psychology and security*. Tallin: Walgus.

2. Experimental study of border guards' psychological readiness for risk

In order to study the peculiarities of psychological readiness of the officers of the State Border Guard Service of Ukraine to risky behavior in professional activities, we conducted a statutory research on a sample of early adulthood respondents (aged 22 to 30). The total sample consisted of 301 officers, of whom 101 were with a length of service at the border up to 3 years, 200 officers with a length of service of 4 to 8 years. In the research, in order to study the features of occurrence of border guards' indicators that characterize their psychological readiness for risk in professional activities, we used a complex of known in psychology methods and techniques: observation, oral and written questioning, testing, methods of mathematical processing of research results (factor, correlation and cluster analysis, Fisher's criterion for determining the significance of differences in indicators, etc.). The following methods were used as test ones: M. Zuckerman's test for self-esteem predisposition to risky behavior, "Questionnaire of qualitative indicators of risk inclination in different spheres of life" (O.P. Sannikov, S.V. Bykov), methods to diagnose: person's tolerance for uncertainty (D. McLain), motivation for success and avoidance of failures (A.A. Mehrebian), "Model of behavior in stressful situations" (S. Hobfall scale), "Diagnosis of strategies of behavior in conflict" (K. Thomas), Coping strategies (R. Lazarus) and others.

To determine the typology of person's risk and to determine its components for border guards, the methods were used from the research of O. Vdovichenko (2019).¹⁸ The procedure of cluster analysis by the K-means method for factor loadings was carried out and the types of military men were determined by risk factors: "impulsive risky" officers (about 50% of young officers, 48% – in the group of the age 25–30), "low risky" officers (respectively 22.5% and 25.5%), "high risky" officers (27.5% and 26.5% respectively).

¹⁸ Vdovichenko, O., (2019). *Psychological bases of person's risk in ontogeny. (diss. doc. psych.)*. PSU named after K. D. Ushynskiy, Odesa.

As we find out, the officers of the impulsive-risky type are the most common in both groups. Some more of these officers are the ones with up to three years of service experience. The inclination risk among impulsive risky officers is manifested in the display of inadequately high demands on themselves, their lives, and their close people, ways and means of solving life's difficulties, as well as in the need to make their professional life brighter. The researched ones of this type are characterized by low risk readiness, impulsiveness in actions, decision making and emotionality. It is this behavior that is more specific to young officers than to those who have much more experience at the border.

The border guard officers who are a part of the low risky group are characterized by moderate, prudent behavior, rationality and no apparent risk inclinations.

The high risky officers are eager for new experiences, thrills and emotions. They are burdensome with such one-of-a-kind, day-to-day work the border guard service is, sometimes creating unnecessary difficulties on their own, problems that generally complicate their lives and the lives of others, deciding whether or not to perform a risky act is an important component of a person's risk functioning. That is why our study examined the correlation between certain indicators, the components of person's risk for the entire sample of border guard-officers aged 22–30. The results are presented in table. 1.

Table 1

**Correlation between decision taking indicators
and risk factors of the border guards**

Scales of decision taking	Person's risk factors		
	Integral component of person's risk	The cognitive component of person's risk	Impulsiveness
Vigilance	-0,64***	-	-0,17**
Avoidance	0,43***	-	0,32***
Procrastination	0,39***	-0,16**	-
Custody	0,51***	-	0,28***

Notes: * – $p < 0.05$; ** – $p < 0.01$; *** – $p < 0.001$.

The “integral component of person’s risk” is characterized by the desire for risk in interpersonal communication, in the sphere of health, service and everyday life, non-adaptive desire for difficulties, intolerance to monotony, search for new experiences and thrills. It is characterized by a lack of vigilance in decision-making, impulsiveness in choosing behavioral strategies, in particular in situations of risk, avoidance of responsibility for decisions, high emotional arousal and uncertainty in the situation of choice of alternative decisions. The high level of development of this risk component of officers implies excessive speed and impulsiveness in considering and choosing alternative ways of solving the problem, disclaiming responsibility for the taken decision, shifting responsibility to others, postponing such a choice.

The “cognitive component of person’s risk” is negatively associated with procrastination in decision making. Therefore, high risk tolerance and risk readiness are inherent for border guards who are not inclined to delay decision-making until later. “Impulsivity” as a component of person’s risk, characterized by excessive emotionality in risk situations, is negatively associated with vigilance in decision-making and positively – with vigilance and avoidance of decision-making. Consequently, high emotionality in risk situations, impulsiveness as a factor in the exercise of risky behavior inherent to the researched ones who take decisions very quickly, neglecting to consider all possible alternatives, with turbulent emotional experiences, which can have negative consequences actually.

The study revealed that officers have a high level of risk and extreme behavior inclination against the background of low subjective assessment of situations as dangerous, characterized by high emotionality in the evaluation of experience, a tendency to soul-searching in the assessment of the situation and their actions in it, orientation to their emotions and feelings, not an objective assessment of the consequences of their behavior. The peculiarities of reflecting one’s own behavior in the border guards’ risk situations depend on the person’s risk typology. As person’s risk indicators grow, the ability to reflect on the causes and effects of the risk situation systematically and its own role in it decreases, impulsive persons are more likely to be introduced to introspection, and low-risk people – to systemic reflection.

During the empirical study, the role of cognitive factors in determining a border guard-officer's personality risk was examined. The table 2 presents the relationship between person's risk factors and such cognitive indicators as creativity.

Table 2

**Indicators of creativity of border guards
with different types of risk**

Scales of creativity	Types of person's risk (M ± o)			Probability of results
	Impulsively risky	Low risky	High risky	
Speed	5,67±1,81	4,75±1,91	6,17±1,59	p <0,01
Originality	11,00±4,14	7,64±1,44	11,60±4,89	p <0,001
The degree of development of the creative product	4,89±1,88	5,53±2,16	6,20±1,53	p <0,01

It was found out that “Integral component of person's risk” and “Cognitive component of person's risk” correlate with indicators of speed and originality positively. Impulsivity correlates negatively with the degree of creative product development, so the higher the emotionality and impulsiveness are in the risk structure of an officer's personality, the lower the indicators are in officer's performing creative tasks. High level of propensity and readiness to take risks characterizes the officer as the most creative, capable of solving creative tasks personality.

The influence peculiarities of motivational and regulatory factors on the border guards' risk were studied, in particular such indicators as viability, volitional self-control and motivation for success. Motivational and regulatory factors of those subjects belonging to different types of person's risk were compared.

The research revealed that the border guards have a negative relationship between the factor of “Integral component of person's risk” and involvement and control as well as between the factor of “Impulsivity” and the control indicator. A positive correlation was found between the factor “Cognitive component of person's risk” and

the risk acceptance. In general, the risk of an officer's personality is characterized by low viability indicators. The border guards under study differ in their viability scales depending on the types of person's risk.

The "impulsive-risky" type of officers has the lowest engagement rates compared to other types. They choose risky behavior to achieve the goal, but they are less convinced that being involved in the event gives them the maximum chance of finding something worthwhile and interesting.

The indicators of control in the structure of viability are the highest in the low-risky group. Therefore, the greater the conviction is that life can be controlled, the less the border guards' propensity is to take risks. Risk-taking is more inherent for high-risky individuals. An officer who views life as a way of gaining experience is prepared to act in the absence of reliable guarantees of success, at his own risk, believing that the pursuit of simple comfort and safety impoverishes his life and he is more likely to show a high propensity and readiness to take risks.

The high indicators of border guards' propensity and readiness to risk are manifested in the orientation not of action but of state. With low volitional self-regulation, the low levels of attention randomness are characteristic, as well as excessive emotionality is that accompanies the process of activity and is not aimed at achieving results. High person's risk, and especially excessive impulsiveness and emotionality in situations of risk, are peculiar to persons who are characterized by emotional tension.

Impulsive type researched subjects are characterized by low risk readiness and decision-making, emotionality, and difficulties in initiating action. Low-risk persons are characterized by moderate levels of readiness and inclination for risk, they are characterized by a greater focus on action, eliminate all obstacles to the realization of intent effectively, have a higher level of volitional self-regulation.

One of the indicators of motivation for person's risk is the motivation to succeed or a fear of failure. Features of its manifestation in the group of border guards are presented in Table 3.

Table 3

**Motivation for success/fear of failure of border guards
in situations of risk**

Types of person's risk	Category of border guard-officers	Motivation for success/failure	Probability of results
Impulsively risky	With service experience of up to 3 years	164,89±19,06	p < 0,001
	With service experience of 4–8 years	154,89±18,07	p < 0,001
Low risky	With service experience of up to 3 years	130,57±18,74	p < 0,001
	With service experience of 4–8 years	138,57±17,52	p < 0,001
High risky	With service experience of up to 3 years	184,57±15,18	p < 0,001
	With service experience of 4–8 years	191,35±14,06	p < 0,001

We come to the conclusion that the higher an officer's motivation to succeed is, the greater his risk inclination in various areas of professional activity and extreme behavior is. High risky border guards are more focused on achievement and low risky ones are focused on fear of failure. The high inclination and psychological readiness of officers, under the condition of less subjective assessment of risk situations, imply a greater orientation towards overcoming difficulties and high achievements in their professional activities. "Low risky" officers are characterized by greater rationality, less uncertainty and higher subjective risk assessment, they foresee the fear of failure naturally, i.e. avoid situations where the loss of something valuable or failure are possible.

High risky persons have the highest rates of desire for excellence. Generally, this type of person's risk is a leader in the pursuit of excellence, but the type of motivation – the focus on achievement or the fear of failure – reinforces this influence. The "Impulsive-risky" type is characterized by a fear of failure and the lowest desire. High risky persons have been found to have the highest rates of striving for superiority and excellence. The type "Impulsive-risky" is characterized by a fear of failure and the lowest desire for excellence.

Among the connotative factors of personality risk, one can consider the features of coping strategies and other behavioral ways of dealing with conflict, stress and difficult life situations.

It is established that the factor “Integral component of person’s risk” of the officers is correlated positively with the indicators of strategies of discharge, removal, fatalism, fantasies, denial, self-blame and comparison. Negative links are made with strategies for rational action, seeking help, persistence, positive thinking, distraction, step-by-step actions, controlling emotions, caution, gaining strength, leaving, self-change, restraint, humor, indecision. Thus, the high risk of person at the stage of becoming a border guard-officer is characterized by a tendency to manifest extreme and risky behavior in various spheres of life, associated with destructive strategies for conflict resolution, manifested in emotional response, autoaggression, and inability to resolve the conflict rationally.

The factor “Cognitive component of person’s risk” is associated with indicators of strategies of persistence and distraction positively, but with the indicators of strategies of rational actions, seeking help, expression of feelings, positive thinking, calm and gaining strength, restraint, indecision, feelings of guilt negatively. Therefore, the border guards’ high readiness for risk and awareness of the need and importance of risk imply a persistent resolution of the conflict situation, the ability to divert from the source of the conflict, an inability to resolve the conflict rationally. The “Impulsiveness” factor correlates with indicators of strategies of elimination, expression of feelings, fantasies, caution, overcoming and belief positively, but with the strategy of distraction, comfort, humor negatively. The impulsive side of a person’s risk, which is manifested in the experience of positive emotions in situations of risk, emotional attraction to dangerous situations, associated with the removal from the problem in a conflict situation, the desire to express their feelings in conflict, to overcome it. High impulsivity of person’s risk within a certain type is logically correlated with an inability to control and restrain one’s emotions in a conflict situation.

The low risky persons are dominated by strategies for rational action, seeking help, gaining strength and humor. At the very least level, this type uses strategies of discharge, alienation, fatalism, fantasy, denial, self-blame, comparison and reassurance. The high

risky type use fantasy, disengagement strategies and avoid strategies of restraint, self-change, gaining strength, caution, controlling emotions, comforting and staged actions.

CONCLUSIONS

A theoretical and experimental study of the features of the psychological readiness of border guard-officers in the professional activities suggests that the level of their formation among young officers is much better. Thus, it is necessary to form such readiness in the educational process of the NASBGS of Ukraine. In future, it is planned to develop and experimentally test a special program of formation of the indicated readiness among the cadets of the Academy.

SUMMARY

The material presents the results of theoretical analysis of research on the problem of the psychological readiness of border guards to risk in their professional activities. Different approaches to the problem are analyzed, the factors, components, indicators of determined readiness are distinguished. An experimental research of the forming officers' psychological readiness for risk, depending on their types and length of service experience is conducted.

The analysis of person's propensity to risk by motivational, cognitive, connective components in impulsively risky, low and high risky types of border guards is analyzed. Possible outcomes of their behavior and service at the border are described. Directions for further studies of the problem are suggested.

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Information about the author:

Mykhailo Tomchuk

Doctor of Psychological Sciences, Professor,
Senior Researcher of the Research Department
National Academy of the State Border Guard Service of Ukraine
named after Bohdan Khmelnytskyi
46, Shevchenko str., Khmelnytskyi, 29003, Ukraine
ORCID ID: [orcid.org / 0000-0002-4508-1495](https://orcid.org/0000-0002-4508-1495)
E-mail: tomchukmi@gmail.com

PSYCHOLOGICAL ASPECTS OF THE FORMATION OF READINESS FOR DECISION-MAKING IN EXTREME SITUATIONS BY BORDER GUARDS

Lesia Lytvynchuk

INTRODUCTION

The research of the psychological readiness of border guards for professional activity is presented in the works of: V. Afanasenko, A. Akulich, B. Badmaeva, O. Boyko, O. Borysyuk, O. Bykova, S. Budnik, E. Matusyak, A. Mateyuk, S. Mula, P. Korchemnogo, L. Kuznetsova, C. Kuznetsova, V. Loskutov, S. Maksimenko, A. Moshchenko, L. Orban-Lembrik, V. Osyodlo, O. Safina, V. Sisoeva, A. Stoliarenko, V. Pokalyuk, B. Furmanets and others, who emphasized the need to form motivation for professional activity, the ability to manage their emotional states while being in psycho This is a difficult situation. A number of studies have addressed the issue of preparing future border guards for professional activity (V. But, V. Varenik, A. Voedilo, V. Gribeniuk, Y. Ivanova, V. Kalyuzhny, A. Kaplya, O. Kokun, I. Kovalchuk, O. Kolesnichenko, A. Krylov, R. Kuzina, I. Ponomarenko, E. Potapchuk, V. Ryutin, O. Samokhvalov, S. Filippov, etc.) Due to the military actions in the east of Ukraine, there is a demand for border service professionals who not only function effectively, but also show the capacity for personal development, Self-improvement, creativity in their own activities, ready to take responsibility in an extreme situation. Under such conditions, it becomes important to form the psychological readiness of the future border guard to make a decision in extreme conditions, which is possible due to the improvement of the vocational training system.

Main part

Building the statehood of Ukraine, building a new democratic society brings to the fore the problems associated with the training of a competent specialist who is able to adequately perceive changes in public life and professional growth. Border guards are faced with situations that lead to the following conditions: uncertainty, lack of

time to make the best decision, tension, responsibility, frustration, fear for their own lives, etc. Border activity is a specific field in which special knowledge, skills, skills of a specialist are found, where his professionally significant qualities and abilities are realized. Such a profession is associated with the need to possess the intellectual, psychological, physical, moral potential for risk readiness and a high level of patriotism.

A brief analysis of the concept of development of the State Border Guard Service of Ukraine shows that the activity of border guards takes place under stressful and difficult conditions. Patrolling the terrain within a border region may be accompanied by a high risk of extremality, occupational stress, requiring a specialist to make quick decisions in the face of uncertainty, and the like. The State Border Service of Ukraine emphasizes that border guards should be able to: make independent and non-standard decisions, carry out analysis, planning and control of operational and service activities, organize border service in different conditions, using both traditional and innovative means and methods. protection of the border. Researchers outline the differences between decision-making processes in ordinary life and decision-making in a crisis, which is one of the most important causes of psychological stress on the military when making a decision. There are the following differences between making a combat decision and making a simple, everyday decision:

1. The unknown of the situation. In battle, it is very rare for situations where the situation is completely clear, for each “for” there is a similar “against”, it is necessary to make decisions based on only probable data, which can be false.

2. The inability to achieve the “perfect” result, the fear of mistakes. Even after full and proper preparation, actions can be unsuccessful, and understanding that even “right” actions can lead to “wrong” results is exacerbated by anxiety,

3. Fear of responsibility. Responsibility can be different – before oneself, moral, before management, criminal, etc. But in any case, the military does not want to have problems because of the negative result of their actions.

4. Lack of time to think and consider all possible options. Events can develop so quickly that a decision must be made lightning-fast.

5. Unclear purpose of the action or apparent innocence of the action. Often, the overall purpose of the action is unclear, including that it can be deliberately hidden by command to prevent the enemy from guessing at a planned operation.

E. Zeer, E. Simanyuk, note that the attitude to risk is determined mainly by the conditions of the environment or by some individual psychological characteristics of the person, such as aggression or anxiety level. People with a strong need for self-affirmation and more aggressive personalities make decisions in crisis situations emotionally. Perseverance enables, despite little success, to achieve the desired result in each individual action. Therefore, in the work of the military is important to take into account personal characteristics in the perception of the situation. Researchers describe the mechanism of decision-making in crisis conditions as follows: situation assessment, risk and error assessment, choice of decision-making procedure (creative, situational, standard, intuitive).

M. Dyachenko, V. Lefebvres emphasize that decision making in risk conditions depends to a certain extent on the gender of the manager. Although more experienced executives, both men and women, are more willing to make risk-taking decisions than workers with less work experience, there are some differences between them. Yes, when making decisions in crisis situations, men tend to be at higher risk.

This is due to their inherent traits such as independence in actions, greater than women, the degree of aggression, the need for dominance, self-affirmation. Women choose more cautious strategies, but they have a willingness to take risk when making decisions under more specific conditions than men. For example, in the conditions of stress, nervous tension, when experiencing feelings of frustration, such opportunities are reduced. Researchers also present an algorithm for decision-making in crisis conditions: sharpening of attention, orientation in the situation, determination of the priority signal, parameter estimation, evaluation of the situation as a whole, decision-making, algorithm of action, action, result. Therefore, the factors that influence border decision making are stress or psychological exhaustion. The manifestations of stress can be varied, from excessive activity, and attempts to ignore difficulties or inactivity, lack of initiative and negligence.

Psychological readiness is understood as an active mental state, a prerequisite for purposeful activity, its regulation, resilience, efficiency, which helps to successfully fulfill their duties, to properly use knowledge, experience, personal qualities, maintain Self-control and rebuild activity with the appearance of unforeseen obstacles.

Therefore, the content of the concept of “psychological readiness for professional activity”, including the following components: the presence of psychological knowledge, skills, emotional state, physical abilities of the individual, etc.

Structural components of psychological readiness for activity in extreme situations are presented in the works of M. Dyachenko, L. Kandybovych, Y. Zabrodin, V. Ponomarenko, T. Kanivets, K. Durai-Novakova, Y. Zabrodin.

O. Proskura¹ (Almukhanova & oth., 2007) interprets psychological readiness for activity as a personal formation that includes such structural components as motivational, cognitive, and operational components. K. Durai–Novakova defines the structure of psychological readiness for work through motivational, psychological, and professional components. A. Derkach identifies in the psychological readiness for activity such structural components as: cognitive, emotional, motivational. Y. Zabrodin outlines such structural components of psychological readiness as: operating, which is interpreted as the organization and separation of areas of professional activity formed by the psychological system; motivational, which involves the formation, which at the expense of mastered personal values and preferences becomes a system of professional interests and inclinations; functional – generalized, complex human condition. Thus, the main structural components of psychological readiness for professional activity are motivational, professional, operational, cognitive, cognitive. The components are said to be interconnected and dynamically interconnected. Researchers have emphasized the importance of all components of the structure,

¹ Almukhanova, A. B. & oth. (2007). *Bol'shaya psikhologicheskaya entsyklopediya : samoe polnoe sovremennoe yzdanye : Bolee 5000 psikhologicheskikh terminov y ponyatyay* [Big psychological encyclopedia: the most complete modern publication: More than 5000 psychological terms and concepts]. Moscow: Эkсмо Publ. (in Russian).

including the determining ones are the motivational and cognitive components.

M. Dyachenko, L. Kandybovych in their works define the following structural components of psychological readiness for activity in extreme situations: motivational (responsibility, feeling duties); orientation (knowledge of the conditions of activity); operating (possession of methods and techniques, necessary knowledge, skills, abilities, processes of analysis, synthesis, correlation, generalization, etc.); volitional (self-control, mobilization); evaluation (self-assessment of their readiness).

The authors interpret readiness to act in an extreme situation as a stable characteristic of the individual and call it “long-term readiness”. Unlike the situational state of readiness, it operates on an ongoing basis and, since it is formed in advance, is an essential prerequisite for the success of the activity. Positive features of long-term readiness are the conformity of its content structure and conditions of professional activity, ease of actualization and inclusion in the task, plasticity, combination of stability and dynamism. Summarizing the above, it should be noted that readiness for activity in extreme situations is a systemic formation that is formed over a period of time.

A close position is maintained by M. Kotik, which defines the following structural components of psychological readiness for activity in an extreme situation: motivational (responsibility for tasks, sense of duty); orientation (knowledge and understanding of the peculiarities and conditions of activity, its requirements for personality); operating (possession of methods and techniques of activity, necessary knowledge, skills, abilities, processes of analysis, synthesis, comparison, generalization, etc.), volitional (self-control, Self-mobilization, ability to manage the actions that make up the performance of duties); evaluative (self-assessment of one’s readiness and conformity of the process of performing professional tasks with the optimal models)² (Kotyk, 2017).

A. Puni distinguished the following structural components of psychological readiness: motivational (self-confidence; desire to actively,

² Kotyk M. A. (2017). *Psikhologhiya y bezopasnost*. [Psychology and Security]. Tallyn (in Russian).

confidently and fully fight to achieve goals); emotional (optimal level of emotional arousal; high degree of readiness for various adverse external and internal influences); volitional (the ability to arbitrarily control their actions, thoughts, feelings, behavior in a tense atmosphere, in changing conditions)³ (Kufliievskiy & Bolotskykh, 2010).

Thus, the researchers distinguish the following structural components: motivational, operational, cognitive, emotional, volitional, where each plays a special role in shaping the readiness of the specialist of the extreme professions for professional activity.

Interesting in the context of our study is the view of V. Sysoev, who presents the following structure of the psychological readiness of the warrior to act in extreme situations: physiological, determined by adaptive changes; technical, characterized by the level of development of the ability to perform appropriate in form and intensity of motor actions; social due to motives related to the performance of the activity; psychological, characterized by adaptive changes that occur in the human psyche due to the specific activity and requirements.

Leading, according to A. Rostunov, in the structure of psychological readiness for activity in extreme situations are the cognitive and emotional components, where the emotional state is associated with the strengthening or weakening of human cognitive activity. The strong-willed component is closely related to the purpose and quality of the activity, as well as to the previous components. According to A. Rostunov, the structure of preparedness is at the same time the structure of the mental state of readiness, and their correlation is as follows: preparedness – potential human potential and readiness – the degree of mobilization. Thus, researchers establish a relationship between the cognitive, emotional, volitional components of psychological readiness to act in extreme situations.

F. Genova and E. Genov represent psychological readiness for activity in extreme situations as a state having the structure: stage-by-stage formation (the condition does not arise spontaneously, but

³ Kufliievskiy A. S., & Bolotskykh M. V. (2010). Indyvidualno–psykholohichni faktory, yaki spryiaiat uspishnosti navchalno-sluzhbovoi diialnosti kursantiv universytetu [Individual-psychological factors that contribute to the success of university students' educational and service activities] *Problemy ekstremalnoi ta kryzovoi psykholohii*, vol. 7, pp. 254–259. (in Ukrainian).

must be formed consciously and purposefully, by mobilizing forces to perform precisely this activity); emotional readiness (state of mobilization readiness); time factor (forces must be used at the right time).

The researchers emphasize that the substructures of the integral structure of psychological readiness for action in an extreme situation are: biological, (adaptive changes to loads); operative (characterized by the level of development of the ability to perform appropriate in form and intensity of motor actions); activity (due to motives related to the performance of the activity); psychological (adaptation to environmental changes). Psychological readiness has a structure, which is understood as “the quality and degree of development of cognitive, emotional and volitional processes” necessary to perform a specific activity”⁴ (Henov & Henova, 1973).

A. Barabanshchikov, N. Belousov argue that the state of psychological readiness arises immediately before the activities of the specialist of extreme professions. Researchers determine the following structure of psychological readiness for activity: knowledge of the task, factors that accompany the process of its implementation (danger, unexpectedness, increased responsibility, lack of time and information, etc.); ability to evaluate the influence on the human psyche of extreme factors and the changes that occur in it; techniques and ways of managing their mental states and actions in overcoming difficulties; the skills, habits, abilities and personal qualities necessary for performing various tasks and managing their emotional states; a willingness to take action.

V. Yagupov defines the following structural elements of psychological readiness for activity: motivational (the desire to overcome difficulties in a crisis or an extreme situation and understanding the need to overcome them, assessing their ability to manage mental states); cognitive (providing the necessary amount of relevant information that is necessary for purposeful and meaningful activity in extreme conditions); emotional (experiencing feelings of confidence or doubt about one’s readiness to overcome difficulties); volitional (indicates the ability to overcome crises and professional

⁴ Henov F., & Henova E. (1973). Mobylyzatsyonnaia hotovnost y autohennaia trenyrovka sportsmena [Athlete mobilization readiness and autogenic training]. *Psikhologiya y sovremennyi sport* [Psychology and modern sport]. Moscow: Fyzkultura y sport Publ, pp. 242–251. (in Russian).

difficulties); operating room (the presence of high physical abilities that allow you to successfully complete the task)⁵ (Yahupov, 2000).

Thus, scientists emphasize that the psychological readiness for a professional activity of a subject in extreme situations is the willingness of a specialist to perform professional functions in emotionally stressful situations. Let's try to generalize the structural components of psychological readiness for activity in extreme situations of professionals of extreme professions (Table 1)

Table 1

Generalized table of components psychological readiness for activity in a crisis situation of professionals of extreme professions

Number in order	Component	Intrinsic content of components
<i>1</i>	<i>2</i>	<i>3</i>
1	Motivational	Responsibility, desire to overcome difficulties in an extreme situation, stability of motive for choosing a profession, understanding of a professional task, importance of the chosen profession
2	Operating	Organization and isolation of directions of professional activity, possession of methods and techniques of activity, necessary knowledge, skills, processes, analysis, synthesis, presence of high physical abilities that allow to successfully accomplish the task in difficult conditions
3	Orientation	Knowledge, understanding of the peculiarities and conditions of the activity, its requirements for personality, ability to quickly navigate in an extreme situation and make informed decisions
4	Evaluative	Self-esteem of their readiness, conformity of the process of performing professional tasks to the optimal samples, ability to evaluate, predict the situation, ability to evaluate the influence on the human psyche of extreme factors and changes that occur in it

⁵ Yahupov V. V. (2000). *Viiskova y sotsialna psykhohiia* [Military and social psychology]. Kyiv: VPTs "Kyivskiy universytet" Publ. (in Ukrainian).

End of Table 1

<i>1</i>	<i>2</i>	<i>3</i>
5	Emotional	Heightening or weakening emotional activity, feeling obligated to complete tasks, experiencing feelings of confidence or doubt in their willingness to overcome difficulties, ability to be in psychological optimum and abstract from emotional decisions
6	Willed	Ability to overcome difficulties, crises, anxiety, developed Self-control, Self-mobilization, ability to manage actions, desire for Self-improvement, responsibility, independence, ability to provide the necessary amount of relevant information, which is necessary for purposeful and meaningful activity in extreme conditions, knowledge, tasks, accompanying the process of their implementation; techniques and ways of managing their mental states and actions in overcoming difficulties; skills, habits, skills, aptitude for active action
7	Cognitive	Availability of relevant knowledge, skills, analytical, prognostic, reflexive skills, developed memory (motor, emotional, imaginative), creative, logical thinking, attention, imagination, clarity and conciseness of language, ability to verbalize one's own thoughts, presence of need for increased thoughts professional knowledge, creative transformation of skills, developed cognitive and social activity, having a clear, reasoned own position, adaptation to professional activity

Psychological readiness for professional activity in extreme situations is manifested in knowledge, skills that are combined with personal qualities.

Scientists say that psychological preparedness for crisis situations is a set of interrelated professional, psychological and personal traits that contribute to the growth of professionalism, help to achieve quality results in the process of activity, willingness to risk and self-sacrifice, the ability to maintain self-control and self-restraint the occurrence of unforeseen obstacles.

To analyze the formation of the psychological readiness of border guards to make decisions in extreme situations, it is necessary to conduct a psychological experiment. The experiment in psychology is used as the main method of change (in therapeutic practice), research (in science) of reality, and has traditional planning (subject to the presence of one unknown variable) and factorial (when multiple variables are unknown).

In the scientific literature distinguish the following types of psychological experiment: ascertaining (the researcher experimentally examines only the existence of connections, dependencies between phenomena, determines the initial data of the study); molding (accompanied by the application of a specially designed system of measures aimed at the formation of certain qualities, etc.); control (determines the level of knowledge, skills and skills based on the materials of the forming experiment). The leading task of the psychological experiment is to make changes in the educational process according to the content of the study; creation of conditions in which the connections between different phenomena under study are most clearly presented; accounting for the results of the change process and conclusions⁶ (Lavrentieva & Shyshkina, 2007).

Accordingly, it is of great importance to organize experimental work in schools, which should have a clear fixation of the starting conditions; formulation of the hypothesis and expected results; fixing independent variables; fixing the experimental conditions, determining the results and matching their hypotheses.

Establishing the essence of the psychological experiment and the place in it of the ascertaining and formative stages will allow to determine the level of formation of the psychological readiness of the border guards to make a decision in an extreme situation, to develop a program aimed at the formation of this phenomenon.

To find out the level of preparedness of border guards for decision-making in extreme situations, students and students were offered the following questionnaire: “Psychological readiness for

⁶ Lavrentieva H. P., & Shyshkina M. P. (2007). *Metodychni rekomendatsii z orhanizatsii ta provedennia naukovo-pedahohichnoho eksperymentu* [Guidelines for the organization and conduct of scientific and pedagogical experiment]. Kyiv: PTZN Publ. (in Ukrainian).

decision-making in extreme situations”; questionnaire “Emotional state”; a test for determining knowledge of the psychological preparation of future border guards for an extreme situation.

The basis of the questionnaire is to determine the formation of psychological readiness for decision making in extreme situations, which may depend on the presence of a number of motives:

- social motives that contribute to the formation of psychological readiness for decision making in extreme situations, given the importance of the profession, are dependent on the assessment of others;

- professional motives that encourage the acquisition of specific knowledge, skills and competences that are professionally relevant (psychological readiness for decision-making in extreme situations makes it possible to pursue professional activity at a higher level, promotes competitiveness, career growth);

- cognitive motives – interest in self-knowledge, understanding of the value of knowledge of the surrounding world, internal need for self-improvement, self-development;

- social identification, the importance of one’s profession in the eyes of others, and a positive attitude;

- pragmatic motives – acquired knowledge will promote career development;

The questionnaire “Psychological readiness for decision-making in extreme situations” should include the following questions:

1. Are you familiar with the concept of “Psychological readiness”?

2. Are you aware of the problem of decision-making in extreme situations?

3. Does the study of disciplines taught at the university contribute to the psychological readiness for decision-making in extreme situations?

4. Do you consider psychological readiness a condition for making a constructive decision in extreme situations?

6. Does your emotional state affect your emergency preparedness?

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4. Do you consider psychological readiness a condition for making a constructive decision in extreme situations?

5. Does your emotional state affect your emergency preparedness?

The questionnaire “Emotional state” allowed to reveal negative emotional states as indicators of existing emotional problems that may interfere with the formation of psychological readiness to be in an extreme situation. Thus, for a border guard who has psychological problems, forming readiness for decision-making in extreme situations is a “cornerstone” of his activity.

Psychological factor is the leading in the activity of the border guard, because the presence of depressive manifestations, aggression, emotional instability can lead to complex consequences in professional activity. Questionnaire “Emotional state” allowed us to assess the presence of the above states, and thus personal problems.

The concept of “Personal problem” is briefly outlined – the subject cannot solve the problem on his own due to the lack of awareness of its preconditions. Personal problem and causes the inability to perform a particular activity due to the presence of conditional values, unconscious motives, traumatic experiences of childhood, etc.⁷

A personal problem can interfere with the objective perception of others and others. This problem causes the inability of the subject to take responsibility, to manage their emotions, to work constructively with others, to have partnerships, a stable state of health in stressful situations and professional interaction.

The Emotional Status questionnaire provided information about:

– the presence of a psychological problem that causes negative emotional states;

⁷ Binkovskyi O. A., & Zhdanenko O. A., & Serdiuk Yu. I. & oth. (2010). *Kultura prykordonnoho kontroliu v punktakh propusku cherez derzhavnyi kordon Ukrainy : navch. Posib* [The Culture of Border Control at Crossing Points at the State Border of Ukraine: Tut. tool]. Khmelnytskyi : NADPSU Publ. (in Ukrainian).

- the level of development of the emotional sphere, the presence of optimism, psychological flexibility, mobility, etc .;
- the ability to constructively cooperate and the ability to take responsibility without the influence of emotional factors;
- ability to manage their own emotions, peculiarities of perception of an extreme situation and ability to make a constructive decision in an emotionally difficult situation;
- Adaptation opportunities, in particular the ability to overcome difficulties in an extreme situation, the absence of negativism, activity, etc.
- the presence of psychological Self-regulation skills.

The developed questionnaires are based on the principles of: taking into account the peculiarities of the respondent's perception of the text of the questionnaire; the focus of the questions on the problem under study; clarity and structure of content blocks. The questionnaire has such conditional content blocks as: analysis of emotional state, level of development of emotional sphere, adaptive abilities and Self-control. For the convenience of processing the results of the questionnaire, an assessment scale from 1 to 10 was selected. The results of the questionnaires "Psychological readiness for decision making in extreme situations" and "Emotional state" were calculated on a 10–point scale: from 1 to 4 points – low, from 5 to 7 points – average, from 8 to 10 points – high.

The questionnaire "Psychological preparedness for decision making in extreme situations" was calculated according to the following indicators: low level – low awareness of the problem of psychological readiness for risk, decision making in extreme situations; low interest in professional development; unwillingness to acquire psychological knowledge. Respondents with intermediate levels had a vague knowledge of the issue of psychological risk readiness and decision making in extreme situations; the relative desire to develop psychological knowledge. The high level was characterized by a high awareness of the problem of psychological readiness for risk, the issue of decision–making in extreme situations; the desire to develop knowledge in the field of psychology.

The results of the questionnaire "Emotional state" were calculated according to the following indicators: 1–6 points – presence of negative emotional state, depressive states, feeling of loneliness,

emotional closeness, aggressiveness, dissatisfaction with life, low adaptability; 7–10 points – positive emotional state, openness to new experiences, activity, high adaptability, ability to emotional load.

Application of the Reactive (Situational) and Personal Anxiety Scale Spielberg, Yu. L. Hanina will allow to analyze the adaptive capabilities of the subject. Self-control and Self-esteem of anxiety are an essential component of adaptive personality behavior, in particular a border guard specialist. It is well known that anxiety is a major indicator of the ability to adequately make decisions in extreme situations. The techniques allow us to identify a set of personality traits that allow the frontier to tolerate the effect of stressors without harmful bursts of emotions that affect activity and may cause mental disorders. It is established that high stress resistance is characterized by low level of emotionality, which can lead to callousness, lack of emotions, indifference, closedness and the appearance of depressive tendencies.

The presence of high personal anxiety is an indicator that a specialist may misinterpret information coming from outside and interpret it as threatening. Such distortion leads to difficulties in making a balanced decision in an extreme situation, because it is based on the emotions of fear.

Test “Diagnosis of strategies for behavioral activity in stressful conditions”. Diagnosis of strategies for behavioral activity in stressful conditions allows you to determine the type of personality, its tendency to respond to a certain type of reaction in extreme conditions. This test allows you to: assess the subject’s need for activity (depression or vice versa); initiative or lack of action during stress; anxiety, aggression, or depression; feeling of constant tension; inability to relax; negativism or deviation from reality; inability to sustained tension or vice versa; endurance and high Self-regulation; high motivation to achieve the goal, etc. Yes, the test reveals behavioral responses of type (A): it is a personality with unstable emotional reactions, impatient, impulsive personality, which in stressful conditions are incapable of making informed decisions. Such a person is capable of aggressive reactions and in extreme situations can show unexpected reactions.

Type A.1 is characterized by competitiveness, business activity, impatience, which in the activity of the border guard can find expression in conflict, aggressiveness, etc. Individuals of this type have a weak nervous system and thus have difficulty in being in an extreme

situation. It is difficult for such individuals to cope with anxiety, and a life-threatening situation can be viewed as catastrophic.

In contrast, there are two other types (AB and B) characterized by emotional stability, Self-confidence, rationality, caution, moderate activity, and so on. Future border guards with these types of personalities are effective for staying in psychologically challenging environments with increased stress and risk to life.

The technique “Diagnosis of the type of emotional response to the influence of environmental stimuli” also allows you to analyze the persistent or unstable behavior of a person, confidence, ability to respond adequately to critical situations.

The technique was used because of its ability to determine the type of emotional response of the individual that is needed in the activities of the future border guard. The border guard who is in an extreme situation requires immediate decision making, responsibility, self-confidence, emotional stability and so on. Borderline emotional reactions can play a major role in his professionalism.

The test contributes to the definition of such positions as “euphoric position outside”, which implies a positive attitude to life, openness, activity, a high level of emotional Self-regulation and so on. The future border guard who has a high score, reflective activity in the middle, a person is passive, fixates on the little things, long plans his own actions and difficult to implement them, has difficulty making decisions, shows aggression and anxiety without high level irritant.

A close preliminary character is dysphoric activity outside, which is manifested in irritability, aggressiveness, unrestrainedness, hostility, negativity towards life, inability to take responsibility, depressive position, etc. Thus, the last two types need to undergo psycho-correctional training and work directly on these individuals.

In the process of introducing a test for determining the knowledge of the psychological preparation of future border guards for an extreme situation, the uniformity of their distribution is taken into account by the complexity of perception by cadets and students. Below is a sample of test tasks designed by Lytvynchuk M. Yu.⁸ (Lytvynchuk, 2018a).

⁸ Lytvynchuk M. Yu. (2018). *Formuvannia psykholohichnoi hotovnosti maibutnikh prykordonnnykiv do pryiniattia rishennia v kryzovykh sytuatsiakh* [Formation of psychological readiness of future border guards for decision-making

The test questions were based on the cognitive and motivational components of psychological readiness to make decisions in extreme conditions. The test allows to ascertain the presence of analytical thinking (logically analyze and organize the material obtained). So the test question “Psychological readiness for action in extreme situations” provides a number of answers:

a) a set of professional and personal qualities that enable a specialist to effectively interact with others during a psychologically difficult situation, facilitate its successful resolution by making a well-considered decision;

b) professionalism, desire to work in a psychologically difficult situation;

c) timely decision-making in a particular situation, in accordance with the motives, goals and objectives of the activity.

The question presented involves testing your knowledge of the problem of psychological readiness to act in extreme situations. Although the answer options have similar semantics, the answer to the right question must be determined quickly.

The following questions are intended not only to test the standard knowledge, but also the specifics of the border guards’ professional activity⁹ (Lytvynchuk, 2018b).

So the test question “emergency” is: a) a situation in a certain territory as a result of an accident, catastrophe, natural disaster, entails human casualties, carries damage to human health or the environment, significant material loss and disruption of life people; b) catastrophe, a natural disaster that entails human sacrifice; c) threat to human health or the environment.

A 100-point scale was developed to test the psychological readiness test for the extreme, where: 1 to 30 points – low level of knowledge: no correct answer – 1 point, 3 correct answers – 10 points, 5 correct answers – 30 points; from 30 to 60 points – average: 6 correct

in crisis situations] (PhD Thesis), Kyiv: GS Institute of Psychology Kostyuk NAPN of Ukraine (in Ukrainian).

⁹ Lytvynchuk M. Yu. (2018). *Formuvannia psykholohichnoi hotovnosti maibutnikh prykordonnykiv do pryiniattia rishennia v kryzovykh sytuatsiakh* [Formation of psychological readiness of future border guards for decision-making in crisis situations] (PhD Thesis). Kyiv: GS Institute of Psychology Kostyuk NAPN of Ukraine (in Ukrainian).

answers – 40 points, 8 correct answers – 50 points, 10 correct answers – 60 points; from 60 to 90 points – a high level of knowledge: received the right answers to almost all questions – 70 points, the right answers to all questions – 80 points, the correct answers to all questions with creative disclosure of their content – 90–100 points. The qualitative analysis of the questioning and testing takes into account the correctness of the answers, knowledge of theoretical material and awareness of the possibilities of its use.

Studying the level of formation of psychological readiness for decision-making by the future border guard in extreme conditions requires delineation of a set of criteria of their indicators and correlation with the chosen research methods (Table 2).

The future border guard must distinguish between crisis and extreme situations; understand the psychological features of the impact of the crisis on the psyche of the individual; to know the features of decision-making in extreme situations, the role of psycho-traumatic factors in the activities of border guards, etc.

Table 2

**The ratio of the criteria of psychological readiness
for decision-making by the future border guard in extreme
conditions and selected methods of diagnosis**

Number in order	Criterion	Indicator	Method
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1	value-motivational	availability of motives for learning and personal development; the need to form a psychological readiness for decision making, a sense of the value and importance of one’s profession; desire to succeed, motivation for social activity	Test Determining Knowledge of Psychological Preparation of Future Border Guards for Extreme Situation “ Test “Diagnosis of behavioral strategies in stressful conditions” Methodology “Diagnosis of emotional reaction type on influence of environmental stimuli

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
2	procedural	advanced organizational skills, knowledge of decision-making algorithm, ability to analyze, organize and summarize information ability for professional and personal growth, development of social-perceptual intelligence, ability to act outside the pattern	Questionnaire “Psychological readiness for decision-making in extreme situations” Test “Scale of reactive (situational) and personal anxiety Spielberger, Y. L. Hanin”
3	Personality-reflexive	ability for professional and personal growth, development of social-perceptual intelligence, ability to act outside the pattern	Questionnaire “Psychological readiness for decision-making in extreme situations” questionnaire “Emotional state” test “Scale of reactive (situational) and personal anxiety Spielberger, Y. L. Hanin “ Methodology “Diagnosis of emotional reaction type on influence of environmental stimuli
4	Cognitive	Knowledge, ability, skill, desire for self-development, self-improvement	Questionnaire “Psychological readiness for decision-making in extreme situations” Test “Determination of stress resistance by the method of S. Cowan and G. Willianson” Questionnaire “Psychological readiness for decision-making in extreme situations”

A significant indicator is the attitude of the military to their profession, their activities, their mutual assistance, their ability to trust others, their level of awareness of political events, and more.

CONCLUSIONS

The article revealed that the future border guard should be able to analyze the motivation of their own activities and justify the decision made, determine the level of professional and professional capacity of colleagues, etc.

Studying the system of psychological training at the National Academy of the State Border Guard Service of Ukraine gave grounds for distinguishing the following features: the presence of a system of psychological training of students and cadets for extreme conditions; availability of programs for psychological training of cadets and students of professional activity; system of measures to stimulate cadets to increase the level of psychological readiness for activity in extreme conditions; creation of conditions for motivation of future border guards for the development of psychological knowledge.

Border guards must be able to cooperate constructively with colleagues, have social-perceptual intelligence, show empathy, conflict-free communication, convey information received during operational operations, use knowledge of psychology in advising the population about extreme situations, etc.

We have reason to say that the low level of psychological readiness for decision-making in extreme situations is largely due to the poor motivation of future border guards, the lack of proper educational and methodological support.

SUMMARY

The article presents the psychological aspects of the formation of readiness for decision-making in extreme situations by border guards. It is emphasized that the psychological readiness for the professional activity of the subject in extreme situations consists in the willingness of a specialist to perform professional functions in emotionally stressful situations. It has been established that the main structural components of psychological readiness for professional activity are motivational, professional, operational, cognitive and cognitive. An attempt is made to generalize the structural components of

psychological preparedness for extreme professions to work in extreme situations. The study of the psychological training system at the National Academy of the State Border Service of Ukraine gave reason to highlight its features: the presence of a system of psychological preparation for staying in extreme conditions; the availability of psychological training programs for cadets and students of professional activities; a system of measures to stimulate cadets to increase the level of psychological preparedness for activities in extreme conditions; creating conditions for motivating future border guards to the development of psychological knowledge. The correlation of criteria of psychological readiness for decision-making by future border guards in extreme conditions and the selected diagnostic methods is revealed.

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Information about the author:

Lesia Lytvynchuk

PhD in Psychology, Senior Researcher

National Academy of the State Border Guard Service of Ukraine

named after Bohdan Khmelnytskyi

46, Shevchenko str., Khmelnytskyi, 29003, Ukraine

ORCID ID: orcid.org/0000-0002-5085-4499

E-mail: lutol@ukr.net

PECULIARITIES OF COGNITIVE SPHERE OF OFFICERS OF THE OPERATIONAL AND INVESTIGATIVE UNITS OF THE STATE BORDER GUARD SERVICE OF UKRAINE

Oleksandr Makhlai

INTRODUCTION

The tasks of the State Border Guard Service of Ukraine (SBGS) are to search and record factual data on illegal actions of individuals and groups at the state border, the responsibility for which is provided by the Criminal Code of Ukraine, intelligence and subversive activities of special services of foreign organizations with a view to ending offenses and in the interests of criminal justice, as well as obtaining information in the interests of the security of citizens, society and the state. Within the limits of their authority, officers of the SBGSoperational and investigative units (OIU) are obliged to take necessary operative-investigative measures to prevent, timely detect, stop and solve crimes and expose the causes and conditions that contribute to the crime, to prevent offenses.

In order to effectively combat illegal activities at the border, OIU officers must have a high intellectual capacity, be professional, be able to work ahead, be able to analyse trends in the crime situation and anticipate possible threats to the security of the country. Only those officers who have a highly developed cognitive realm can accomplish these tasks. The dialectic of countering cross-border crime requires that OIU officers be able to see not the shell of the phenomenon, but its essence, not frozen schemes, but development processes, their interconnections and contradictions, to be able to identify intricate mechanisms of illegal activity at the state border.

The profession of the officer of the police officer of the SBGS is associated with considerable risk not only for him personally, but also for the health and life of his relatives and relatives. This threat can be significant, as evidenced by the possibility to change the personal data, places of residence, work and training guaranteed by the law officer of the SBGS OIU. In addition, the activities of an OIU officer are public

and private. Therefore, it is charged with particular legal responsibility for the strict observance of the rights and freedoms of the individual and the citizen in carrying out the operational search activities. Due to the peculiarities of the work and the unspoken forms of prompt work, it is largely related to the need to comply with the requirements of the conspiracy, which imposes additional requirements on the subject of law enforcement activity^{1, 2, 3}.

The profession of a police officer of the SBGS of Ukraine can be called multidimensional: it includes elements of other professions: detective (agent), lawyer, customs officer, Special Forces. In all its dimensions, it requires the OIU officer to persistently and creatively seek truth within the law, the ability to identify cause and affect relationships between people's facts, events and actions, and to make timely decisions in difficult, unanticipated situations, and so on. Therefore, the basis of the activity of a police officer of the traffic police of Ukraine is primarily search work: obtaining information about the operational situation, its analysis and evaluation, developing a system of operational and investigative measures to identify, prevent and stop cross-border crimes, search of persons who have committed these crimes, or suspected of their perpetration, obtaining information on events and actions that threaten the security of the state at the border.

The effectiveness of the professional work of OIU officers is ensured by their ability to make decisions in complex unforeseen, un-

¹ Galimov Yu. A. (2004). *Psyhologhichne proghnozuvannia nadiinosti diialnosti oficeriv operatyvno-rozshukovykh pidrozdiliv Derzhavnoi prykordonnoi sluzhby Ukrainy* [Psychological Prediction of the Reliability of the Activity of Officers of the Operational-Search Units of the State Border Guard Service of Ukraine] (PhD Thesis), Khmelnycky: Nacionalna akademiia Derzhavnoi prykordonnoi sluzhby Ukrainy im. Bohdana Khmelnyckoho.

² Kelbia V. Gh. (2002) *Vykhovannia profesiinykh yakosti u mabutnikh oficeriv operatyvno-rozshukovykh orghaniv Prykordonnykh viisk Ukrainy* [Education of Professional Qualities of Future Officers of the Border Guards of Ukraine] (PhD Thesis), Khmelnycky: Nacionalna akademiia Derzhavnoi prykordonnoi sluzhby Ukrainy im. Bohdana Khmelnyckoho.

³ Filipov S. O. (2004). *Psyhologhichni osoblyvosti profesiinoidiialnosti oficeriv-operatyvnykh Derzhavnoi prykordonnoi sluzhby Ukrainy* [Psychological Features of Professional Activity of Officers-Operatives of the State Border Guard Service of Ukraine] (PhD Thesis), Khmelnycky: Nacionalna akademiia Derzhavnoi prykordonnoi sluzhby Ukrainy im. Bohdana Khmelnyckoho.

programmed situations for which there are no ready decisions. As a rule, only a person capable of acting in the conditions of uncertainty, difficulties, risk, a person who can think and manoeuvre and retain self-control and confidence can effectively solve professional tasks in such a situation^{4, 5, 6, 7}.

Thus, the professional mobility of SBGSofficers is provided primarily by the developed cognitive sphere. Our study was devoted to the study of its features.

1. Research on the development of cognitive processes of officers of the SBGSOIU officers

The study of the cognitive sphere of the officers of the SBGSOIU was conducted in three stages. In the first stage, the scientific literature on the problem was analysed, the purpose, objectives and methodology of the research work were determined. In the second stage of the study, the development of cognitive processes in officers of the SBSS OIU officers was examined. The hypothesis was tested that the development of the cognitive sphere of the officers of the SBGSOIU can be ensured, if not the individual cognitive processes, but in the whole cognitive activity as a system of structural and functional components, is improved. The level of formation of the cognitive sphere of the officers of the SBGS OIU officers and individual cognitive processes was determined. In particular, some cognitive processes, interpersonal and interpersonal

⁴ Kitaev-Smyk L. A. (1983) *Psikhologiya stressa*. [Stress Psychology] Moskva: Nauka (in Russian).

⁵ Kremen V. Gh., Oleksienko B. M., Safin O. D. ta in. (1999) *Psykholohiia profesiinoi diialnostiki oficera* [Psychology of Professional Activity of an Officer]. Khmelnyckyj: Vydavnytvo Akademiji PVU (in Ukrainian).

⁶ Potapchuk Je. M. (2004) *Socialno-psykhologhichni osnovy zberezhenia psykhičnoho zdorovia viiskovosluzhbovciv* [Socio-Psychological Bases of Maintaining Mental Health of Servicemen] (PhD Thesis), Khmelnycky: Nacionalna akademiia Derzhavnoi prykordonnoi sluzhby Ukrainy im. Bohdana Khmelnyckoho.

⁷ Timchenko O. V. (2003) *Profesiinyi strespracyvnyki vorghani v vnutrishnikh sprav Ukrainy (konceptualizaciia, prohnozuvannia, diaghnostyka ta korekciia)* [Occupational Stress of Internal Affairs Officers of Ukraine (Conceptualization, Forecasting, Diagnosis and Correction)] (PhD Thesis), Kharkiv: Kharkivskiy universytet vnutrishnikh sprav.

relationships were investigated, which revealed the peculiarities of the self-knowledge of officers of the SBGSOIU.

In order to diagnose the level of cognitive process formation of officers of the SBGS officers, it was taken into account that intelligence mediates the success of professional activity. Intelligence has the greatest influence on the behaviour and relationships with other people, as well as being the leading, pivotal quality of not only cognitive but also holistic personal development of a person⁸. The study identified the following groups of cognitive mental processes: feeling, perception, memory, attention, imagination, and thinking. It is also taken into account that it is impossible to isolate any of the cognitive processes in pure form, since they are all closely related to each other^{9, 10, 11}.

Test methods were used to diagnose cognitive processes.

Intellectual Liability Test (IL) is a blank group test to study the speed and flexibility of intellectual processes¹². This test is used to predict the success of vocational training, mastering new activities and assessing the quality of work practices. It has been taken into account that performing the test tasks requires the individual to have high concentration of attention and speed of action. It was suggested that test participants should perform simple intellectual tasks at a given pace, requiring both very rapid response (several seconds) and a sharp switching of activities from one type of intellectual work to another. It is this mode of cognitive activity that is quite common for officers of the SBGSOIU.

⁸ Brushlinski A. V. (1996). *Subekt: myshlenie, uchenie, voobrazhenie*. [Subject: thinking, scientists, imagination] Moskva: Institut prakticheskoy psikhologii (in Russian).

⁹ Shestopalova O. P. (1997). *Struktura piznavalnykh zdibnostei motyvatsii ta mozhyvosti psikhodiahnostyky v osvitiomu orientuvanni* [The Structure of Cognitive Abilities and Motivation and the Ability to Diagnose Them in Educational Orientation] (PhD Thesis), Kharkiv: Kharkivskyi universytet vnutrishnikh sprav.

¹⁰ Davies D. R., Jones D. M., Taylor A. (1984). *Selective and sustained attention tasks: Individual and group differences*. Parasuman R. et al. (eds.) Varieties of attention. N.-Y.: Academic Press. 25–30.

¹¹ Hale J. A., Lewis M. (eds.) (1980). *Attention and cognitive development*. N.-Y.: Plenum Press.

¹² Druzhinin V. N., Galkina T. V. (1993). *Metody psikhologicheskoy diagnostiki* [Methods of Psychological Diagnosis]. Moskva: IPAN (in Russian).

Pictogram Test (P) is a form-based test for exploring the features of thinking, memory, and the affect-personal sphere¹³. G. Münsterberg's (MT) technique is a blank test for determining selectivity and concentration of attention¹⁴. The technique allowed studying the stability of attention during prolonged, monotonous work, the pace of mental processes, the degree of fatigue of attention during activity, the influence of obstacles, the predominant setting on speed or diligence in work. One-Redundancy Row Test (ORR)¹⁵ is a blank test for assessing the ability to generalize and distinguish essential features, to evaluate verbal-logical thinking. J. Raven's Progressive Matrices (RPM)¹⁶ is an intelligence test designed to measure the level of intellectual development, non-verbal intelligence, and logical thinking. Test "Creative abilities" (CA) – a technique for the study of creative imagination, speed of thought processes and latitude-activity of the vocabulary¹⁷.

The use of these tools made it possible to evaluate the development of the cognitive sphere of the officers of the SBGSOIU by the following components:

- the amount of attention (the number of objects that can be focused);
- attention flexibility as the ability to quickly switch from one setting to another under new conditions;
- flexibility of thinking as a feature of productive thinking, manifested in the restructuring of existing ways of solving the problem, in changing the inefficient way of solving the optimal;
- openness of intelligence, that is, the ability to accept and process new ideas in the mind, taking into account the identified problem; openness of intelligence is associated with the ability to find

¹³ Druzhinin V. N, Galkina T. V. (1993). *Metody psikhologicheskoy diagnostiki* [Methods of Psychological Diagnosis]. Moskva: IPAN (in Russian).

¹⁴ Druzhinin V. N, Galkina T. V. (1993). *Metody psikhologicheskoy diagnostiki* [Methods of Psychological Diagnosis]. Moskva: IPAN (in Russian).

¹⁵ Druzhinin V. N, Galkina T. V. (1993). *Metody psikhologicheskoy diagnostiki* [Methods of Psychological Diagnosis]. Moskva: IPAN (in Russian).

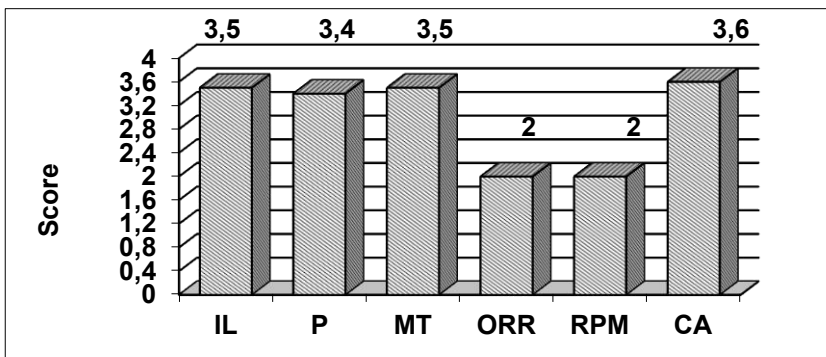
¹⁶ Druzhinin V. N, Galkina T. V. (1993). *Metody psikhologicheskoy diagnostiki* [Methods of Psychological Diagnosis]. Moskva: IPAN (in Russian).

¹⁷ Druzhinin V. N, Galkina T. V. (1993). *Metody psikhologicheskoy diagnostiki* [Methods of Psychological Diagnosis]. Moskva: IPAN (in Russian).

analogies, to establish associations, to think independently, to be able to look from the new side for known things;

– prediction of the means and the end result of the subject’s substantive activity, based on which programs of behaviour in a problem situation are determined.

The survey was attended by 26 officers of the SBGSOIU. The average age of the respondents is 24.8 years. Respondents’ experience in OIU averaged 3.2 years. The results were agreed on a 5-point scale, in which 5 points is a higher score, 0 points – a lower score. This data is clearly illustrated in Fig. 1.2. During the test, the respondents demonstrated a high level of intellectual lability, including ease of assimilation of material and new information, retraining ability, success in professional activity, development of performance skills and sufficient level of memory and attention development.



IL – “intellectual lability”; P – “pictogram” technique;
MT – G. Münsterberg technique; ORR – “One-Redundancy Row Test”;
RPM – progressive matrices by J. Raven; CA – creative ability test.

Fig. 1. The level of development of cognitive processes in OIU officers

The application of G. Munsterberg’s technique made it possible to detect high concentration and persistence of attention, ability to focus on the object for a long time. The accomplishment of this task did not cause difficulties for the respondents, since in their professional activity officers of the police department of the SBGS often work with

different documents, compare information, analyse it. These qualities of attention contribute to the successful work with documents.

As a result of the data processing of the “Pictogram” methodology, high rates of indirect memory were found. The accomplishment of the task did not cause difficulties for the respondents; they usually reproduce the entire list of suggested words and phrases. Image analysis allowed them to be divided into three groups: symbolic, symbolic, concrete and abstract images. Taking into account IP Pavlov’s typology, respondents who used abstract images were considered to be thinkers¹⁸. It can be assumed that in mental operations such officers of the OIU, as a rule, seek generalization, synthesis of information, and this quality meets the requirements of the profession.

When examining the creative abilities of the officers of SBGS OIU, it was found that the sentences made by them from the proposed words were not original, most often they were the same logical combinations. This test proved to be the most difficult to perform. Moreover, at this stage of the work of the officers of the police department of the SBGS there was a restructuring of the activity, which affected the dynamics of their task. A similar situation occurred when performing the task of writing a series of words with one extra.

Working with the progressive matrices of J. Raven did not cause the respondents difficulties, which indicates the high level of formation of non-verbal thinking in them.

When interpreting the results of the study of cognitive processes, a comparative analysis was conducted with the results of the study of extraversion-introversion and neuroticism by R. Eysenck. It has been suggested that respondents with different degrees of extraversion-introversion and neuroticism will differently use large volume and heterogeneous information when solving mental problems, will exhibit different degree of flexibility when choosing decision options, with different diligence, different efforts will be made to achieve the goal (the result of the decision).

The analysis of the obtained data showed that:

- better performance when using tests showed introverts;

¹⁸ Nikandrov V. V. (2007). *Psikhologiya* [Psychology]. Moskva : Prospekt (in Russian).

– introverts and extroverts revealed specific procedural peculiarities of activity in solving problems related to the ways of analysing and using information, as well as to the ways of organizing cognitive activity. These specific procedural features have been interpreted as manifestations of individual styles of activity that are characteristic of introverts and extroverts;

– individual style of introductory cognitive activity (characterized by systematic and in-depth analysis of information, sequence of decision making, gradual selection and careful examination of decision options, caution in choosing the final answer, desire to use records and other external supports), more adequate to ways logical tasks, tasks for attention and memory. Individual extrovert style (characterized by ease when using a large amount of heterogeneous information (both current and stored), flexibility of decision making), adequate when performing the “Pictogram” technique;

– “Unstable” on the scale of neuroticism, the respondents better solved the test tasks for creative ability.

The analysis of the results of the study of the cognitive processes of officers of the SBGSOIU allows to conclude that they have well-developed memory, attention and non-verbal thinking, but insufficiently developed imagination and creative abilities.

Considering the nature of the professional activity of the officers of the SBGSOIU officers, in particular the need to combine in it the skills of activity “type – person” and “person – sign”, confrontation with its objects by type of permanent conflict, it can be argued that it requires developed imagination and creative abilities. Developed by creative thinking and imagination also provide for the professional mobility of officers of the SBGSOIUs, which in turn have a decisive influence on the effectiveness of their professional activities. Only in the case of advanced creative thinking and imagination will the OIU officer be able in most cases to anticipate different options for solving professional problems, be able to give them critical, well-grounded assessment, critically reflect on problem situations, develop problems independently, and theoretically argue their options, anger.

Thus, the results obtained in the study of cognitive processes have confirmed the hypothesis that the development of officers of the SBGSOIU only individual cognitive processes or even their entire complex will not increase the overall intellectual level of their

professional activity. The professional effectiveness of officers of the SBGSOIU as subjects of activity of classes “person – person” and “person – sign”, which takes place in the conditions of permanent social and interpersonal conflict, is determined by the high level of development not only of cognitive processes, but of cognitive activity as a system of structural and functional components. It is these components that determine the success of an OIU officer in interacting with the outside world and mediate the performance of his or her professional activity as a whole. These findings will contribute to the development of adequate, psychologically sound technologies for the development of the cognitive sphere of officers of the police officers of the SBGS, taking into account the psychological features of their conflict interaction and behaviour in risky situations.

2. Peculiarities of cognitive activity of officers of SBGSOIU

The study was attended by 51 officers of the SBGS OIU from the age of 23 to 45 years. In conducting the statistical analysis of the received data, their dependence on the age, the direct assignment of the unit in which the officer is serving was considered; the position he occupies; length of service (up to 1 year, up to 3 years, up to 5 years, over 5 years). The features of cognitive activity were revealed by the results of a comparative analysis of the results of officers of the SBGSOIU officers and their more experienced colleagues, recognized specialists in their field.

Respondents were asked to rank for the degree of significance and to assess the level of cognitive skills development: to determine the professional need for their cognitive activity; identify personal need for their cognitive activity; determine the motives of cognitive activity in a particular situation; identify possible outcomes of their cognitive activity in a particular situation; to analyse the internal connections of the system of needs, motives and goals of their cognitive activity; independently identify the cognitive contradictions that arise in practice; predict trends in cognitive development; design their cognitive activity; 9 – to play variants of decisions of cognitive tasks; clearly build a plan and program for solving the cognitive problem; adequately evaluate the effectiveness of their cognitive activity; carry out retrospective analysis of cognitive situations and solutions to

cognitive problems; correlate the motives and goals of cognitive activity and their implementation in a specific situation; be aware of the true motives of their cognitive activity in a particular situation; identify the causes of difficulty in solving cognitive tasks; accurately set cognitive tasks; identify cognitive problems; translate the strategy of knowledge into the level of tactics; when solving a cognitive task or problem, separate facts and estimates; to transform a “habitual view” of information to disrupt automaticity in solving cognitive problems or problems. In our opinion, the difference between the assessment of the importance and the formation of cognitive skills makes it possible to conclude what skills should be developed by officers of the SBGS.

Comparative analysis revealed that, on average, the self-esteem of cognitive skills was slightly lower (from 4.75 to 5.49 points) than the self-esteem of their significance (from 5.32 to 5.775). According to the results of self-assessment it was found that the following skills are most formed in the officers of the OIU:

- identify personal need for their cognitive activity (5.49);
- identify the professional need for their cognitive activity (5.45);
- determine the motives of cognitive activity in a particular situation (5.28);
- determine possible outcomes of their cognitive activity in a specific situation (5.27).

Thus, the respondents are confident that they are able to clearly understand the needs of their cognitive activity, identify the goals of the activity.

Further on the degree of formation are the ability to independently identify the cognitive contradictions that arise in practice (5,18), and the ability to accurately set cognitive tasks and identify cognitive problems (5.175 and 5.17 points, respectively). Awareness of motives allows you to start designing activities and then go directly to solving cognitive problems and tasks.

The ability to reflect, analyse the course of activity was evaluated somewhat lower: it is about the ability to relate motives, goals and their realization in a particular situation (5.08), to adequately assess the effectiveness of their cognitive activity and the ability to identify the causes of difficulties in solving cognitive problems (5.075 and 5.507 points respectively). At the same level, the ability to analyze the internal systems, needs, motives, and goals of cognitive activity was

evaluated and to design its course (5.063 and 5.06 points, respectively), as well as to plan and program for solving the cognitive problem (5.04) and to understand the true motives your cognitive activity in a specific situation (5.01).

The following cognitive skills are considered to be insufficiently formed by the officers of the SBGSOIU:

- play variants of decisions of a cognitive task (4.97);
- convert the usual view of information to disrupt automaticity in solving cognitive problems or problems (4.96);
- predict trends in cognitive development (4.86);
- translate the strategy of knowledge into the level of tactics (4.82);
- share facts and estimates when solving a cognitive task or problem (4.76);
- carry out retrospective analysis of cognitive situations and solutions to cognitive problems (4.75).

Comparison of self-esteem data by officers of the SBGSOIU officers of their cognitive skills with the normative model allows to note that the subjective assessment of phases of cognitive task determination and decision modelling is not balanced, and the formation of phases of analysis of possible decisions and de-automation of cognitivism.

A comparative analysis of the self-esteem of the level and significance of the cognitive skills of officers of the SBGSOIU, as well as the level of significance of these skills in the group of experts allowed revealing differences in estimates. Comparing the ranking results of formed and significant cognitive skills gives approximately the same composition of skills. The only difference is that officers have the ability to identify the motives of cognitive activity in a particular situation, while the more significant one is not. The first five significant skills include the ability to identify the causes of difficulty in solving cognitive problems. Obviously, it is very important for OIU officers to be aware of the driving force behind their cognitive activity. The desire to understand both professional and personal need for cognitive activity is clearly expressed.

The most significant officers of the SBGSOIU officers recognize the ability to identify a professional need for their cognitive activity (average score 5.775), while in terms of their level of competence, this

ability takes second place (average score 5.45). In the group of experts, this ability is also among the leading, but occupies the third position.

High importance in the self-esteem of officers of the SBS SBGSU is the ability to independently identify the cognitive contradictions that arise in practice (average score 5.77). It was rated slightly lower by employees' self-esteem (average score 5.18) and was not even included in the top five by experts.

It is very important for officers of the SBGSOIU to be able to identify their personal need for their cognitive activity. At the same time, in terms of self-esteem, this skill occupies the first place (average score 5.49), and for experts this skill was insignificant.

The fourth place of importance for the officers of the SBGSOIU officers is the ability to identify the causes of difficulties in solving cognitive tasks (average score 5.75), and fifth place – the ability to determine the possible results of their cognitive activity in a specific situation (average score 5.723).

The analysis of the most formed and the most significant skills in the group of officers of the OIU revealed differences in the subjective perceptions of the officers of the OIUSBGSU about the formation and significance of one or another skill. It is obvious that first and foremost, OIU officers are aware of the need to improve specific cognitive skills. At the same time, the comparison of the top five rankings by form and by significance shows that OIU officers consider the phases of the decision modeling, cognitive task clarification and cognitive planning phases to be the most important for effective cognitive activity. In the Expert Group, the emphasis in the structure of cognitive activity is shifted to the sequential implementation of phases of actualization, clarification of the cognitive task, planning of cognitive activity and modeling of the decision.

Comparative analysis of the least significant cognitive skills showed that, as in the expert group, OIU officers in the last five rank included the ability to adequately assess the effectiveness of their cognitive activity (5.51), the ability to share facts when solving a cognitive task and assessment (5.41), ability to analyse the internal connections of the system of needs, motives and goals of their cognitive activity (5.395), ability to predict trends in the development of cognitive situation (5.39) and to carry out retrospective analysis (5.32).

Such an assessment can be explained by the fact that in the professional activities of OIU officers perform separate tasks, which does not give the full picture of what is happening. In this regard, it is delegated responsibility for the development of the situation and the modelling of the future to the immediate superior, and therefore there is no need for these skills.

Next, we analyse the dependence of the structure of cognitive skills on age, position, service experience, and the specifics of the officers of OIU.

Four age groups were identified to study the dependence of subjective perceptions on the structure of cognitive skills by the officers of the SBGS OIU officers: Group 1 – from 23 to 27 years old; Group 2 – from 27 to 32 years old; Group 3 – from 32 to 40 years old; Group 4 – over 40 years old.

When analysing the self-esteem of skills in different age groups, one can see a certain coincidence. However, fourth-grade OIU officers are much better able than others to identify possible outcomes of their cognitive activity and clearly build a plan and program for solving a cognitive task. It is also possible to distinguish the level of formation of the ability to be aware of the true motives of their cognitive activity in the officers of second and fourth group OIU and the ability to detect cognitive problems in officers of the first and fourth age groups.

When analysing the first five ranked places in self-esteem, only the second group differed. Only SBGS OIU officers in this age group included in the list of the most urgent skills to accurately set cognitive tasks.

When comparing the self-esteem of the significance of cognitive skills in age groups, we can conclude that the assessments of the importance of one or another skill in all groups are almost the same. The lowest value in all age groups of OIU officers was given the ability to make a retrospective analysis of cognitive situations and decisions of cognitive tasks.

Analysing the five most significant skills, you can also see a coincidence in the assessment of the first four positions in the second and fourth age groups and the discrepancy between the officers of the second and fourth age group SBGS, who put only the fifth position on the ability to determine the personal need for cognitive activity and ability to identify cognitive problems accordingly.

Also, subjective perceptions of officers of different structural units (anti-smuggling – ASU, anti-trafficking – ATU, information and analytical work – IAWU and regime-secret work –RSWU) were analysed. Analysis of the results of the study revealed a significant difference in the levels of skill formation in officers of different structural units. In particular, unlike other groups, the officers of the classified units are much higher in assessing the ability to project the course of their cognitive activity and to adequately assess its effectiveness. In this group, in comparison with others, the level of forming the ability to analyse the internal connections of the system of needs, motives and goals of their cognitive activity, to predict trends of cognitive development, to understand the true motives of cognitive activity and to share facts and assessments in solving cognitive problems. Officers of other structural units in the assessment of the formation of cognitive skills are almost unanimous.

Only Fifth Officers in the Fifth Counterfeit Officers set the ability to pinpoint cognitive tasks, while officers in other structural units did not include it at all in the top five. Most likely this is due to the specific differences between the professional activities of the officers of the anti-smuggling units and the officers of other units. Yes, to prevent the offense of smuggling, you need to know not only the number of people who can commit it. You need to know what goods will be shipped overseas, where they will be stored, when, how (legally or illegally) and where the shipment will take place.

The analysis of the self-esteem of the level of significance of cognitive skills also revealed a significant discrepancy between the assessments of officers of the regime-secret units with the assessments of officers of other structural units.

Comparing the cognitive skills most relevant to officers in the various divisions of the intelligence agencies, we can see the coincidence of the estimates given by the officers of the anti-smuggling, trafficking, and intelligence officers. The views of the officers of the secrecy divisions are completely different from them, as is the nature of their professional activity.

The logic of the study also required us to analyse the dependence of the subjective perceptions of the officers of the SBGSOIU on the structure of cognitive skills from the position they occupy. We divided the study participants into four conditional groups. The first was

enlisted by the heads of the Operations and Investigation Units (OIU), the second – the officers of the Regional Directorates Operations and Investigation Units (RDOIU), and the third – the officers of the Operations and Investigation Units of the Border Guard Detachments (GDOIU), and the fourth group included officers of Operations and Investigation Units (OOIU).

In the leadership group, the self-esteem of skills such as the ability to project their cognitive activity, to understand the true motives of their cognitive activity in a particular situation, to share facts and assessments when solving cognitive tasks was lower than in other groups. It can be assumed that this group of skills is the least up-to-date in OIU managers. In the other groups, the self-esteem of the skills is mostly the same.

The first four ranked places in self-assessment of the level of cognitive skills in all groups occupy the same skills: to determine their need for cognitive activity; identify the professional need for cognitive activity; identify possible outcomes of their cognitive activity in a particular situation; determine the motives of cognitive activity in a particular situation. Fifth-ranked executives take the ability to identify the causes of difficulty in solving cognitive tasks; OIU officers of regional offices – ability to detect cognitive problems, and officers of OIU border units – the ability to independently identify the cognitive contradictions that arise in practice.

An analysis of the self-esteem of the significance of cognitive skills showed that the level of assessments in the group of officers of the RDOIU is slightly higher than in the other categories of officers. Managers generally rate the importance of cognitive skills much lower than other categories of OIU officers. This can be attributed to the fact that senior positions are usually occupied by experienced officers who have a thorough knowledge of the tactics and specifics of offenders at the state border and are able to solve high-complexity professional tasks independently and effectively. For them, the discipline of subordinates is more important. Subjective perceptions of the importance of certain cognitive skills in RDOIU officers are in some way the same as those of OIU heads and BDOIU officers, the difference is only in the fifth rank.

Differences of subjective perceptions about the structure of cognitive skills in the officers of the SBGSOIU with different work

experience were also analysed. Analysis of the dependence of self-esteem on the formation of cognitive skills on the length of service in law enforcement agencies suggests that the experience has little effect on the self-esteem of their formation. When comparing the first five ranked places on the basis of self-assessment of cognitive skills, it can be noticed that the self-esteem of officers who have served up to 3 and more than 5 years are quite close. These categories of officers chose the same skills: to identify a professional's need for cognitive activity; identify personal need for cognitive activity; determine the motives of cognitive activity in a particular situation; separate facts and estimates when solving a cognitive problem or problem; accurately set cognitive tasks. But they were placed in different order of importance. At the same time, officers with up to 1 year and up to 5 years of age have the ability to assess their cognitive performance adequately and accurately set cognitive tasks when solving a cognitive task or problem and to share facts and assessments accordingly. When interpreting the result, one should also take into account the fact that, as a rule, officers of this category are young people from the age of 22 to 27 years, who are characterized by high emotionality and categorical character. It is these qualities that sometimes interfere with a proper understanding of the operational situation; tasks assigned by the manager and adequately evaluate the results of their work.

In assessing the significance of cognitive skills, we found significant differences for all categories of OIU officers. Officers of the SBGS OIU who have up to 1 year of experience place first the ability to determine the possible outcomes of their cognitive activity in a particular situation, that is, the skill that is in the phase of analyzing possible solutions to a cognitive task. Officers with up to 3 years of experience consider the ability to determine the professional need for cognitive activity the most important, that is, the ability to enter the decision modelling phase. Officers with up to 5 years of age put first the ability to clearly build a plan and program for solving a cognitive task, that is, a skill that is in the planning phase of cognitive activity, and officers with experience of more than 5 years highlight the ability to identify the causes of difficulties in solving cognitive tasks that are also in the modelling phase.

Thus, the study of the self-esteem of the level of development and the level of significance of competences for different categories of

officers of SBGS OIU revealed some differences between experts and officers of SBGS, as well as between officers of different ages, from different units, different positions, and service experience. In particular, it was found that, according to experts, the emphasis in the structure of cognitive activity should be given to ensure the consistency of phases of updating the cognitive problem, clarifying the cognitive task, planning cognitive activity and modelling the solution of the cognitive task. At the same time, officers of the SBGS OIUs of the other categories consider the phases of clarifying the cognitive task, modelling the solution of the cognitive task and analysing the possible solutions to the cognitive task.

CONCLUSIONS

The value of the cognitive sphere for the effective professional activity of the officer of the operative and investigative units of the SBGS is determined by the specific conditions of operational and search activities at the state border: high degree of organization of cross-border criminal groups, branching of criminal relations, high level of latency and transpersonal complexity. others and the requirements for its organization: the need for a thorough analysis of trends in the development of criminogenic situation, successful forecasting of possible threats and risks, planning activities aimed at preventing the offenders, identify not only the perpetrators, but also the organizers of the offense, disclosure and legal proof of violations of law border, and illegal ways of hiding them, etc. The cognitive sphere of an OIU officer has a specific professional focus on the predominant development of appropriate skills.

Diagnosis of the development of cognitive processes in the officers of the SBGS OIU confirmed the hypothesis that even the complex development of cognitive processes does not ensure an increase in the overall intellectual level of their professional activity. Therefore, it is necessary to develop not just cognitive processes, but the level of cognitive activity as a system of structural and functional components.

Some differences in the indicators of self-esteem of the formation and importance of the cognitive sphere for different categories of officers of the operational-search units were revealed. In particular, it was found that, according to the heads of the operational and

investigative bodies of the SBGS of Ukraine, the emphasis in the structure of cognitive activity should be placed on ensuring the consistency of phases of updating the cognitive problem, clarifying the cognitive task, planning cognitive activity and modelling the cognitive task solution. At the same time, their subordinates consider the phases of elucidating the cognitive task, modelling the solution to the cognitive task and analysing possible solutions to the cognitive task. Differences in self-esteem of development and significance of cognitive skills-competences also depend on peculiarities of age, character of professional activity, position, length of service.

SUMMARY

The article deals with the importance of the cognitive sphere for the professional activity of officers of the operational-search units of the State Border Guard Service of Ukraine, presents the results of the study of the level of development of their cognitive processes and features of self-assessment of the formation and importance of components of the cognitive sphere for different categories of officers of the operational division. It is stated that the requirements for the cognitive sphere of the officer of the operational-search unit are determined by the specific conditions of the operational-search activity at the state border. It is noted that the cognitive sphere of the officer has a kind of professional focus on the predominant development of professionally important cognitive skills. It is concluded that the complex development of cognitive processes does not provide an increase in the overall intellectual level of their professional activity, which requires an increase in the overall level of cognitive activity of the officer as a system of structural and functional components. Differences in cognitive field formation in different categories of officers by age, nature of professional activity, position, length of service have been identified and analysed.

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Information about the author:

Oleksandr Makhlai

Head of Special Disciplines Department

National Academy of the State Border Guard Service of Ukraine

named after Bohdan Khmelnytskyi

46, Shevchenko str., Khmelnytskyi, 29003, Ukraine

ORCID ID: orcid.org/0000-0002-8201-3387

E-mail: al_m@ukr.net

PROFESSIONAL THINKING FORMATION AS A SCIENTIFIC PROBLEM

Andrii Fedyk

INTRODUCTION

The professional activity of the expert involves the presence of a proper level development of professional thinking. Exactly the professional thinking allows you to solve professionally determined problems of varying complexity levels in everyday conditions and time deficits, without reducing the quality. The effectiveness of a specialist is determined mostly by his ability to make in time, accurate, non-standard and algorithmic-procedural decisions, which in connected with a high level of professional thinking development. In this regard, the studying of psychological mechanisms for the professional thinking development in order to train modern professionals are quite relevant in modern psychological science.

The analysis results of the scientific sources indicates that a number of the National and foreign scientists thesis' on the topic of studying the processes of activity and professional thinking, how to solve problems are touched upon in particular: G. O. Ball, V. V. Davidov, A. F. Essaulov, were devoted to the study of processes of activity and professional thinking, as problem solving, S. D. Maksimenko, G. S. Kostyuk, Y. I. Mashbits; V. P. Andronov, A. A. Batalov, L. V. Zasekina, E. O. Klimov, B. F. Lomov, V. N. Pushkin, M. L. Smulson, V. V. Chebyshev and others have studied the origin and patterns of specialists professional thinking in various aspects. The scientist V. O. Molyako devoted attention to the problems of solving professional problems in the conditions of limited time and the development of creative thinking (T. E. Gura, L. R. Dzhelilova, L. V. Zasekina, A. B. Zueva, O. Y. Kovanov, J. V. Krushelnytska, V. E. Lunyov, A. K. Markova, N. I. Povyakel, V. A. Semichenko, etc.), as most authors associate with the process of professional specialist development, acquisition of special professional knowledge, skills during professional training and further

professionalization, which are both allow to ensure effective solution of professional-zoom tasks, search and decision making in interdependence with the level of professional training, professional competence and professionalism at a certain stage of professional development, acquisition of professional skill as a whole. The peculiarities of professional thinking of the modern specialist were also described by American philosophers and psychologists W. James and J. Dewey, a German psychologist, thinking researcher K. Dunker, D. Daud, L. Elder, productive thinking by O. Zelts, and critical thinking by S. Terno, R. Paul, D. Cluster, P. Facione, Z. Husin, D. Halpern, and others.

The analysis results of the scientific works indicate that: 1) there is no single approach to a comprehensive understanding of professional thinking; 2) the issue of professional thinking development hasn't been sufficiently researched in theoretical and practical aspects.

On the basis of theoretical and methodological analysis of the national and foreign scientists approaches to analyze the composition of the term "professional thinking"; to determine its content and identify the main characteristics.

The intensity and speed of the information and technological progress invasion into the Ukrainian society development is increasing the activity of psychological processes, including thinking. The term "thinking" in psychology refers to qualitatively heterogeneous processes, because, as a rule, different phenomenological characteristics of thinking are based on their classification, typology and types. Usually, scientists propose "paired" classifications based on opposite, mutually exclusive or complementary features. The most researched and productive are the classifications of thinking, where differentiation of types of thinking is carried out by the way of scanning reality. The most common of these is practical thinking¹.

But the term "professional thinking" is deserves mostly to our attention. The analysis results of the scientific sources is known that for the first time the term "professional thinking" appeared in

¹ Disa O. V. (2015). *Bulletin of Dnipropetrovsk University*. Psychological mechanisms and factors of development of professional thinking.

XIX century, and began to be widely used only at the second half of the XX century in connection with the objective work intellectualization, the need for the professional mindset formation that allows to update knowledge, improve skills, think critically and find new original means of professional problems solving, well navigate the diverse information flowing, successfully overcome “emergency”, extreme situations. The very important ability is to subjective intellectually saturate own work processes, that is, to see, an isolate problems at work and to solve them creatively. The last one is peculiar to rationalizes and inventors who tend to see problems where they are not noticed by other professionals.

Depending on the activity nature, there is a further differentiation of professional thinking types. Thus, in artistic thinking, thinking differentiates between musical, stage, poetic, compositional and other. In the field of engineering and technical activity, where technical thinking functions, it is implemented both as an operational thinking on the management of large systems, also as a constructive thinking, and an engineering one. There are also juridical, pedagogical, medical (clinical) thinking and so on.

According to S. I. Ozhegov the explanatory dictionary a term “professional” the one that is related and connected to the profession².

So, any kind of professional thinking is conditioned by professional activity and is a separate case of thinking. As to A. Brushlinsky “A person... everywhere and always carries out mental activity with one only purpose: with the purpose of cognition constantly changing and therefore the new properties and relationships of the object, in general being”³.

There is an ambiguous understanding of this psychological phenomenon in scientific research on the problem and development of professional thinking.

Thus, V. V. Yagupov defines thinking as a mental cognitive process that allows a person to carry out indirect, abstract, generalized cognition of the phenomena of the world around, their essence and the connections between them, and which is carried out through mental

² Ozhegov S. I. (1957). *Dictionary of the Russian Language*, 11th ed., Stereotype. Moscow.

³ Leont’ev A. N. (2000). *Lectures on General Psychology*. Moscow: PER SE Publ.

operations – analysis and synthesis, comparison and discernment, judgments and conclusions, abstractions, generalizations, etc.; the process of indirect, generalized reflection of a person by reality in the most essential interconnections and relationships⁴.

Y. V. Krushelnytska considers that professional thinking is socially conditioned, inextricably linked to language, appears from the practice of sensory cognition, and is carried out through the appropriate operations system⁵. Systematic work on the thinking development is carried out at all study stages; the transition from ignorance to knowledge, from incomplete knowledge to holistic, from inaccurate to exact, from inability to ability occurs in the process of various thinking operations, 1. At the same time, professional thinking is closely linked to a specific professional activity and is a generalized reflection in the mind of the specialist of significant facts, phenomena and processes in their essential links and relations.

The main feature of professional thinking based on the paradigm activity is its activity origin. According to O. M. Leont'ev, thinking is generated in practice, and in practice manifests itself; it is an activity, a special activity and cognitive activity⁶.

The active's nature of professional thinking is emphasized on the predicate "practical", that is, it is aimed at transformation, not explanation of activity.

Some psychological patterns of thinking that are important for determining the specific professional thinking by the modern specialist were also investigated by W. James, K. Dunker, and critical thinking by J. Dewey etc. In fact, by W. James⁷, thinking differs from the pure imagination or associations sequence by such a specific property isolation as the separation of material content in this fact, which means the isolation from some whole of that particular trait, which is useful for solving a particular property problem. As to our opinion, it is the experienced specialists who are able to identify this useful significance of the trait as it can influence the phenomenon change in the

⁴ Yagupov V. V. (2004). *Military Psychology: A Textbook*. Kyiv: Tandem.

⁵ Krushelnytska Y. V. (2003). *Physiology and psychology of work: a textbook*. Kyiv: KNEU Publ.

⁶ Leont'ev A. N. (2000). *Lectures on General Psychology*. Moscow: PERSE Publ.

⁷ James William (1981). *The Principles of Psychology*, Vol. 1 (of 2). 11–20.

professional environment. K. Dunker, was willing to determine that it causes the subject to choose this particular aspect of the trait as meaningful, because the perception of the desired property as a peculiar act in the process of thinking and the use of the term “insight” in this context is insufficient. At the same time, the answer to this question is given by J. Dewey⁸, which considers the identification of intermediate concepts put between the distant purpose and the available means, bringing them into harmony with each other. However, the scientist believes that the source of this are past experience and knowledge, so this specific characteristic of thinking should be sought in deeper and broader observations, thoughts, mental habits, attentiveness, mobility, seriousness, in the “trained mind”. E. Max exploring the Viewell’s theory of specificity determines the jump induction beyond the existing method in the process of finding the necessary through abstraction and activity of imagination, which play a leading role in the new defining. At the same time, according to K. Dunker, this list (the interest to the facts interrelation, careful situation consideration, abstraction, activity of imagination and convenient case) leaves the search question still open⁹. From this point of view, K. Dunker writes that a new problematic situation cannot be solved by simply drawing up associative traces that are individually related to the constituents of the problem. At the same time, it has certain elements that are common with problem situations that have already been solved. These identical elements are rise-up idea about the previous decisions, and identical elements of the last one’s and in certain turn help to come up with new decision. As to our opinion, it is in this aspect that K. Dunker attempted to identify the specific characteristic of thinking that underlies professional thinking and its applied component.

Also, the analyses results the associations’ theories, the gestalt, the theory of the complexes of A. Zelts and the philosophy of D. Hume, K. Dunker we have concluded that thinking is a kind of process with the insight (understanding) of a problematic situation, leads to adequate response. And the deeper the insights, the stronger

⁸ Duncker, Karl. (1945). *On problem solving*. APA Psychological Monographs.

⁹ Duncker, Karl. (1945). *On problem solving*. APA Psychological Monographs.

the essential features of the problem situation determine the response, the more intellectual it is. This response is internally and directly determined by the essential features of the holistic problem situation. K. Duncker reveals the specificity of the professional thinking mechanism for a particular problem. The problematic situation must be first and foremost understood by the subject that is, perceived as a whole containing a particular conflict. This comprehension, or understanding, is the basis of the thought process¹⁰. After a complete understanding of the problem situation, the process of thinking with its “penetration into conflict conditions of the problem situation” is included. This penetration by K. Duncker is the first and main stage of thinking. Its content defines as a insightful grasping of the situation peculiarities that do causes this conflict. “Penetration” into a problematic situation ends with the functional adoption solution, which is a positive penetration result. The functional solution contains the essential features of the required task approach, that is, the “functional” aspect of the final solution. The second and last stage of thinking by K. Duncker – is the process of implementation (implementation) of functional solution, the choice of what is really needed for the solution (if the functional solution does not contain its implementation)¹¹. In our opinion, scientists have discovered a significant mechanism that underlies the professional thinking of a specialist and is an insight into grasping specific features of the problem, the ability to solve effectively new professional tasks which is based on professional knowledge, skills and experience.

In foreign researchers by S. Brookfield, R. Johnson, L. Elder, Gildirim, R. Paul, D. Cluster, V. Ruggiero, M. Skryven, P. Facione, D. Halpern, and others, is expanded and supplemented the concepts of term “professional thinking”. Thus, according to Halpern, professional thinking is directed and balanced; S. Brookfield considers this a positive and productive activity; R. Paul, L. Elder – skeptical of the conventional wisdom, as well as controlled, purposeful and meaningful; D. Cluster independent; E. Glaser as grounded; M. Skryven, R. Paul as intellectually disciplined rational and

¹⁰ Duncker, Karl. (1945). *On problem solving*. APA Psychological Monographs.

¹¹ James William (1981). *The Principles of Psychology*, Vol. 1 (of 2). 11–20.

reflective; P. Facione's as evaluative, open, purposeful, self-regulating judgment, cognitive process of man; V. Ruggiero as seeking answers; M. Skreven as professional interpretation and evaluation of observations, information and justification; by R. Johnson is a type of thinking that helps a person to organize, analyze, evaluate this information; by Yildirim is the process of finding, obtaining, evaluating, analyzing, synthesizing and conceptualizing information to develop thinking with self-awareness and ability to use that information creatively and without fear of risk; by R. Dumain as is not socially and historically conditioned in a non-existent form; analytical and reasonable consideration of different approaches.

So, the essence of professional thinking is considered by most researchers to be an assessment of information by the recipient. For example, V. Ruggiero advises readers to evaluate the facts of the message, the arguments for and against, and to distinguish between what is said and how it is said, by whom it is said, and how credible someone's statements are. The author advocates the need to put dialogical questions to separate arguments of information before making judgments about the problem raised in it. This, according to the scientist, will help to avoid inadvertent decisions made in a hurry, and allow considering both advantages and disadvantages of separate arguments, creating of a certain discussion and building own judgment around this discussion¹².

Speaking about the professional thinking components, most of researchers points out that it contains logical, problematic, creative thinking (R. Paul); emotionality, creative imagination, value attitudes (D. Halpern).

The reason or the trigger mechanism of professional thinking development, most scientists are considering contradictions (N. Daud, F. Stankato, S. Terno, D. Halpern, Z. Husin). These contradictions require the specialist to be open by opposing points of view, and ready to make an alternative solution of the problem, to review previous own judgments. Since of professional thinking source contradictions and problems, special skills are required for its development: interpretation, analysis, evaluation, explanation, conclusions, self-regulation. The

¹² Ruggiero V. R. (2012). *Beyond feelings: A Guide to Critical Thought*, 9th ed. McGraw-Hill.

mechanism of professional thinking is the thinking operations that determine the process of thinking and argumentation: goal setting, problem identification, hypotheses, ways to solve it, the consequences forecast, acceptance or rejection of alternative points of view.

The problem of the special critical thinking skills raises the question of the properties of the critical person attribute, that is defines if any human innate ability to analytical information perception and what kind of role the brain plays in this. Many current researches are dedicated to identifying these abilities and developing critical skills thinking.

So, D. Halpern considers that the professional is inherent the ability to plan, the thinking flexibility, perseverance, the willingness to correct mistakes, understanding of its own thinking process, the ability to compromise.

In this manner, he sees the presence of well-developed critical thinking skills and not well-developed ones. The author refers to the team experts opinion from the United States and Canada, who collaborated on the Delphi research method, and defines such abilities and skills of critical thinking as erudition, curiosity, persuasiveness in arguments, diligence and accuracy in complex issues, reason in choosing criteria, ability to concentrate research. Discovering humans ability to think professionally, P. Fachione emphasizes on taking into consideration not only its cognitive characteristics, but also the life attitude in general and individual, specific problems. Attitude towards life as a whole is expressed in curiosity, desire to be aware, willingness to use critical thinking, responsibility, confidence in one's own skills, openness to new thoughts, flexibility of thinking, understanding of other people's thoughts, fairness in taking arguments, honesty about one's own forward thinking and prejudice, prudence in decision making, desire and willingness to review previous judgments. Considering the attitude of people in solving specific problems, the author characterizes him in terms of the ability to clearly express an opinion, accuracy in dealing with complex issues, diligence in finding relevant information, a reasonable approach to the criteria selection, attention to the problem, persistence and accuracy in measurements¹³.

¹³ Lunov V. E. (2013) *Psychological peculiarities of formation of professional thinking of the personality in the system of police of Ukraine*: author. Thesis. cand. psycho. sciences: 19.00.01. Odessa. Nat. University after I. I. Mechnikov. Odessa.

Considering that professional thinking is also practical thinking, let us consider the functions of practical thinking. Regulatory function as an essential characteristic of mental reflection is especially significant for practical thinking. It emphasizes its inclusion in the immediate real transformation of a professional by the object of work: it is thinking in action, for action and action (that is an operational links that are usually subject to immediate implementation). The cognitive function of practical thinking indicates specificity in the conditions of activity. This characteristic of the commander's mind was especially emphasized by B. V. Teplov, who noted that "in many fields of scientific creativity, the representatives of both types of thinking (abstract and concrete). Can achieve greater, sometimes great results. "Graceful observation" as a component of practical thinking was noted by S. L. Rubinstein¹⁴. The difference between theoretical and practical types of thinking, according to B. A. N. Topuzova, is that "they are differently related to practice ... The work of practical thinking is mainly aimed at solving partial specific problems ..., whereas the work of theoretical thinking is focused mainly on the search for general laws"¹⁵. Both theoretical and practical thinking are related to practice, but practical thinking has a direct, instant connection with it. According to this, the practical intellect is usually aimed at solving a practical problem every time, and its conclusions are directly verified by practice. And the theoretical intellect appears to be mediated: it is tested in practice only at the final stages of work. Therefore, the features of practical thinking are closely related.

According to Y. G. Kornilov, practical thinking, knowledge, however, used from theoretical, it remains at the discovery of laws, ways of transformation of a certain object and using properties features; 2) it must be specifically summarized that the situation is adequate; 3) it must be an individual origin; 4) the particular character that he uses, because it's find out they do not reveal the properties features which is discovering and the higher rates exist in situations

¹⁴ Rubinstein S. L. (1973). *Problems of general psychology*. Moscow: Pedagogy.

¹⁵ Topuzova A. N. (2004). *Formation of professional thinking in students of management specialties in the university*: author. diss. ... Cand. ped. Sciences: 13.00.08. Magnitsky State University. Magnitogorsk.

they must include such technique as certain characteristics as soon as they exist; its characterized by non-verbalization, 8.

Practical thinking, as argued by S. L. Rubinstein, this thinking is carried out in the process of practical activity and directly aimed at solving practical problems. Theoretical thinking is achieved about efficiency gains, which provoked the situation with practical theoretical problems. However, practical thinking may implement theoretical activity results¹⁶.

According to O. V. Yagupova the problematic version of the maturity of thinking and professionalism of specific works representatives the use of professional tasks are closely created, with the possibility of the term “professional thinking”. This term for the last years very actively used as the psychology of work and professional psychology as well as in acmeology, professionalism psychology etc. Such kind of thinking, on the one hand, means the higher level of professional development thinking and in this context is closely related to the concept of “professional subjectivity”, and on the other – a special professional thinking, which must be from the point of view of professionalism, professional activities, classes, tasks and technologies of their solving etc.

The scientists emphasize on “professional thinking that has specific differences that are related to the activity specificity, in addition – means to achieve a higher level of thinking development – to increase his professionalism. Professional thinking... is characterized by a special combination of theoretical, practical and creative thinking, due to specific features of professional activity...”¹⁷.

By G. A. Nagorny “professional thinking” means judgments, conclusions, each of which conditionally appears in three subspecies: general, indirect and professional¹⁸.

The analysis results of the scientific sources show that the scientists who discover the problem of professional thinking in

¹⁶ Rubinstein S. L. (1973). *Problems of general psychology*. Moscow: Pedagogy.

¹⁷ Yagupov V. V. (2004). *Military Psychology: A Textbook*. Kyiv: Tandem.

¹⁸ Nagornaya G. O. (2013). *Methodological and technological bases of the study of musical art in the process of formation of professional thinking of personality*. Access mode: <http://lib.mdpu.org.ua/nvsp/BAK7/7/13.pdf>.

psychology and pedagogy, have not yet reached unanimity in the definition of this concept and give the following interpretation:

L. R. Dzhelilova stated the “professional thinking” as a complex personal formation, regulated on the basis of social and individual criteria, closely linked to the real life of a person, in particular, vocational training, professional development and self-development, professional education¹⁹.

O. M. Pechko states that “professional thinking” is the professional ability to analyze systematically, summarize, evaluate, creatively and effectively to carry out the educational process²⁰.

N. M. Kuchinova defines “professional thinking” as an important component of a professional skill of a specialist, which ensures successful fulfillment of professional tasks, making original managerial decisions in a certain field of activity, is the embodiment of professional competencies of a person and a condition of his professional development²¹.

Y. V. Krushelnytska offers her variant of the “professional thinking” definition – as an intellectual activity to solve professional problems. The high level of professionalism of the employee is connected with theoretical, creative thinking and developed practical intelligence²².

According to A. K. Markova, professional thinking includes the process of generalized and indirect reflection of professional reality by a person, ways of acquiring new knowledge about different aspects of work, techniques of setting, formulating and solving professional tasks, stages of making and implementing decisions in professional activity,

¹⁹ Dzhelilova L. R. (2008). *Psychological features of the development of professional thinking in future primary school teachers*: diss. ... For the sciences. degree of Cand. psych. Sciences: Special. 19.00.07 “Pedagogical and age psychology”. Liliya Dzhelilova. Odessa.

²⁰ Pechko O. M. (2015). *Formation of professional thinking of future teachers of physical culture by means of pedagogical situations*: author. diss. for the degree of Candidate of Pedagogical Sciences: Special. 13.00.04 Theory and Methods of Vocational Education. M. Pechko. Zhytomyr.

²¹ Kuchinova N. M. (2014). *Psychological features of the professional thinking of marketers. Problems of modern psychology*. Issue 24.

²² Krushelnytska Y. V. (2003). *Physiology and psychology of work: a textbook / Y. V. Krushelnytska*. Kyiv: KNEU Publ.

techniques of planning the work strategy, developing new strategies for professional activity. Therefore, the first place takes not the knowledge by itself, but certain ways of their involvement in the process of thinking. There are the following characteristics of professional thinking, which the scientist combines into three groups:

- basic types of thinking (theoretical, practical, visual-action, logical, linguistic, etc.);
- properties of thinking (activity, flexibility, independence, lability – rigidity, speed, etc.);
- operations of thinking (generalization, comparison, abstraction, etc.)²³.

However, N. I. Povyakel determines that professional thinking has specific professional differences that are related to the specificity of professional activity, reflects the level of professional development and acquires characteristics that are specific to the profession and the acquisition of professional competence. The scientist characterizes professional thinking with high metacognitive awareness, a culture of self-regulation, self-organization and self-mobilization. It is determined by the following criteria and attributes of professional thinking: highly developed qualification and professional competence, personal and professionally important qualities, motivation to achieve, organization, efficiency and mobilization, ability and flexibility of self-regulation, personal and professional development, orientation to education and realism and modern technologies for solving professional problems, low dependence on external factors²⁴.

According to A. Y. Kovanov, professional thinking causes constant maintenance and updating at a high level of special knowledge and skills, which provide the appropriate quality of search and decision making, which is largely achieved through a high level of professional training both through assimilation and awareness of experience and continuous self-improvement and advanced training²⁵.

²³ Markova A. K. (1996). *Psychology of professionalism*. Moscow: Knowledge Publ.

²⁴ Povyakel N. I. (2004). *Self-regulation of professional thinking in the system of professional training of practical psychologists*: diss. ... Dr. Psychol. Sciences: 19.00.07. National Ped. them. M.P. Drahomanov. Kyiv.

²⁵ Kovanov O. Y. (2002). *I'm a professional and I'm in a profession*. The world of psychology, 2, 135–143.

A. M. Topuzova defines the specifics of the manager “professional thinking” as the knowledge of the essence, identification of patterns and projects construction of production processes, based on deep professional knowledge and professional experience gained from their own experience and from the experience of other professionals. The scientist clarifies the basic features and peculiarities of the professional thinking training: growing activity and initiative of the individual, the formation of a new type of thinking, the presence of entrepreneurship, high responsibility, the ability to organize economically competently both their own activities and the activities of the team²⁶.

According to V. E. Lunov, professional thinking is a set of intellectual skills and personal qualities, the realization of which ensures the successful implementation of professional activity, the ability of a specialist to make and make certain decisions in an operationally significant situation with a certain temporal and spatial advance about the expected, future events are relevant in the case²⁷.

T. E. Gura defines professional thinking as a system-forming component of professional competence, which is reflected in substantive and procedural forms, depends on many situational and external factors that determine the specifics of the professional problems being solved, and personal, internal determinants that characterize the peculiarities of the specialist. its individual-psychological properties. The basic components of the professional thinking of a specialist T. E. Gura considers value-motivational, conceptual-semantic, operational and reflexive, which reflecting the internal psychological structure of thinking activity²⁸.

The results analyses are defined constantly review the classification of psychological characteristics and properties of

²⁶ Topuzova A. N. (2004). *Formation of professional thinking in students of management specialties in the university*: author. diss. ... Cand. ped. Sciences: 13.00.08. Magnitsky State University. Magnitogorsk.

²⁷ Lunov V. E. (2013). *Psychological peculiarities of formation of professional thinking of the personality in the system of police of Ukraine*: author. Thesis. cand. psycho. sciences: 19.00.01. Odessa. Nat. University after I.I. Mechnikov. Odessa,.

²⁸ Gura T. E. (2014). *Psychology of the development of professional thinking in future psychologists in the process of professional training*: author. diss. Dr. psychol. Sciences: 19.00.07. Nat. ped. them. M. P. Drahomanov. Kyiv.

professional thinking, and are known to exist, and they are grouped according to the content and purpose of N. I. Povyakel: 1) practicality, constructiveness, manufacturability, efficiency, concreteness; 2) productivity, searchability, initiative, ingenuity, flexibility, speed, extension, validity, openness, originality; 3) security, mobility, self-regulation, fatigue, reversibility; 4) reliability, consistency, predictability, purposefulness, breadth, depth, criticality; 5) professional-reference coexistence of theoretical and practical, thinking, professional concept, systematic, logical, dialectical²⁹.

So, the professional thinking is an intellectual activity of solving professional problems. Since the specificity of professional activity is predetermined by the peculiarities of the tasks that are carried out by different specialists, the quality of professional activity, or level of professionalism, depends on the type of thinking. A high level of professionalism is associated with theoretical (not empirical), creative, often intuitive thinking and advanced practical intelligence. Training of the professional should require a mandatory analysis of the professional tasks specifics and strategies of its solving, because the process of thinking is to solve certain tasks.

The professional thinking specificity mostly connected with the orienting of a specialist in the subject of his activity, and also by using the signs in this subject, and by technological side of professional activity. Researchers emphasize on the interconnection of change and technology of professional action with the forms and logic of professional thinking. A special object seems to “dictate” the way of its comprehension.

The great importance for professional thinking is the “sense” of the material, the partner, the opponent, the action, moreover, the problematic situation “sense” that has not appeared yet, but may occur in professional activity. Clearly, this a kind of “feeling”, despite its name, is not based on perception or emotion, but on the complex, coordinated work of all intellectual structures, expanded, automatic thinking that instantly processes all the data received by the senses, offers memory, allocates attention according to the needs of the

²⁹ Povyakel N. I. (2004). *Self-regulation of professional thinking in the system of professional training of practical psychologists: diss. ... Dr. Psychol. Sciences: 19.00.07. National Ped. them. M. P. Drahomanov. Kyiv.*

individual (personal meanings). Therefore, in this case, one can definitely speak about professional intelligence.

Than very feeling mentioned above is the basis to make a adequate means choice and the ways of solving professional problems. Yes, the extra high-level professionals often perceive objects and tools as “their own organs” as an extension of their bodies. The surgeon who probes the wound uses the probe as an extension of his arm, and the end of the probe he is looking for a bullet is “palpable” to him. An experienced train driver feels the train in motion all the way to the last wagon. The professionals are not only feel, but also on the basis of some, not always conscious signs, predict the occurrence of problem situation (unusual smell or noise in the car, the plane, some features of the patient’s behavior, the student, etc.)³⁰.

In fact, in some researches, professional thinking is defined as the process of professional problems solving in a particular field of activity, in others – as a certain type of orientation specialist in the subject of their activity. The first approach is related to S. L. Rubinstein’s concept of the determination of thinking “by external conditions through internal”. According to external conditions as to this concept, is a task that sets to the thought process the objective content and direction. So, the process of professional thinking study is on the focus of the specific features analysis of professional tasks.

The second approach is related to the concept of the gradual formation of mental activity by P. Y. Halperin, according to which the specific features of thinking, the content and structure of the mental image cannot be determined by the nature, features and tasks content. Thinking is considered to be as one or another type of orientation of the subject in the object of activity and its conditions, which in turn determines the origin of the tasks to be solved. Despite the attractiveness of this approach of the professional thinking study, it is not without drawbacks. As one of them, we see the lack of logically accurate characteristics of the concepts of “orientation” and “generalization”, as well as an underestimation of the specificity, originality of professional tasks that are solved by different specialists’ profiles.

³⁰ Trofimov Y. L. (2013). *Psychology*. The principle of a unified intelligence and professional thinking. Access mode: <https://westudents.com.ua/glavy/80033-343-printsip-dinogo-ntelektu-ta-profesynemislennya.html3>.

Thinking, according to G. P. Shchedrovitsky, exists in three forms: 1) pure thinking, 2) thought communication, and 3) thought-making, which are not identical but fundamentally different processes based on different laws. Pure thinking is deployed in perfect reality, defines the ideal object; it exists in diagrams, models, drawings and produces knowledge according to the laws of logic; the world of pure thinking is realized through the existence of human culture and is reflected in the texts of communication.

Thought communication is a kind of thinking that occurs through the knowledge operation that exists in the form of concepts, in the process of dialogue, that is, in the communicative form; it exists under the laws of communication, dialogue.

Mindedness is the thinking that occurs within the limits of practical action, “the thought that has passed to the level of situational action”³¹.

Mindfulness and pure thinking are interconnected by communication: when thought-communication finds the perfect object and begins to object on the ideal objects, it becomes the knowledge.

The reflection links pure thinking, thought communication and thought activity, which provides objectification, ontologization and subjectification and also forms a holistic phenomenon – human thinking³². And the reflection, according to G. P. Shchedrovitsky always has several forms: it is often carried out as a reflective attitude in the forms of thinking and mental imitation of the others actions; is both a mechanism of thought, and a kind of independent intellectual form that determines thinking itself, is primary to it.

So, professional thinking is first and foremost a reflective mental activity to solve professional problems. If the specificity of professional thinking depends on the peculiarities of the tasks undertaken by different specialists, the quality of professional activity or level of professionalism depends on the type of thinking. A high level is first and foremost related to a theoretical, reasonable type of thinking³³.

³¹ Shchedrovitsky G. P. (2005) *Thinking – Understanding – Reflection*. Moscow: Heritage MMK.

³² Shchedrovitsky G. P. (2005). *Thinking – Understanding – Reflection*. Moscow: Heritage MMK.

³³ Rubinstein S. L. (1973). *Problems of general psychology*. Moscow: Pedagogy.

In the course of duties accomplishing, the professional actively develops professional thinking as a symbiosis of practical and theoretical thinking, which allows solve the problems more adequately, rationally and systematically tasks and problems that are faced daily³⁴.

The opinion of O. V. Disa is quite correct. The thesis that “despite the conflicting views of scientists, the problem of common methodological approaches by which a comprehensive understanding of professional thinking could be built is extremely significant”³⁵.

Professional thinking skills are acquired by a specialist as a result of many years of practice. As a result of repeated repetitions, future professionals accumulate experience and develop professional thinking skills. The development of professional thinking is a complex process, usually proceeding rather slowly, and depends on general intelligence, practical skills and other factors.

CONCLUSIONS

Having analyzed the scientific and psychological sources, we have come to the conclusion that professional thinking is a holistic, specific, algorithmic and multilevel complex of intellectual processes, specific procedure-algorithmic actions and their results, which provides the solution of problems related to professional activity. This is an essential basis for the professional formation. The professional formation of thinking is based on the insightful transfer of identical elements of gestalt of acquired professional knowledge, skills and experience by finding and understanding its functional significance in its direct relation to this task (problem situation) and understanding of this intrinsic connection with it. According to the results of the study of the genesis of professional thinking, we found that its sufficient level of development in a specialist in modern realities requires the improvement of forms, methods and techniques of training high-quality professionals in educational institutions of Ukraine. Unfortunately, the volume of the article do not allow the author to

³⁴ Lunov V. E. (2013). *Psychological peculiarities of formation of professional thinking of the personality in the system of police of Ukraine*: author. Thesis. cand. psycho. sciences: 19.00.01. Odessa. Nat. University after I. I. Mechnikov. Odessa.

³⁵ Disa O. V. (2015). *Bulletin of Dnipropetrovsk University*. Psychological mechanisms and factors of development of professional thinking.

reveal more fully all the peculiarities of the national and foreign scientists views on understanding the essence of professional thinking.

SUMMARY

The article deals with the studying of professional thinking problem at scientific and psychological sources. Scientific approaches to the interpretation of the concept of professional thinking and ways of solving the professional thinking problems of specialists are characterized. The results of the scientific sources analysis testify to the ambiguity of the views of scientists, and in many aspects the opposite positions of this psychological phenomenon. Scientific views on methodological approaches and comprehensive understanding of professional thinking are revealed.

It has defined that professional thinking 1) is a holistic, specific, algorithmic and multilevel complex of intellectual processes, specific procedural-algorithmic actions and their results, which provides the solution of tasks related to professional activity; 2) the basis for the professional formation.

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Information about the author:

Andrii Fedyk

Senior Tutor of Special Subjects Department,

Law-Enforcement Faculty

National Academy of the State Border Guard Service of Ukraine

named after Bohdan Khmelnytskyi

69, Shevchenko str., Khmelnytsky, Ukraine, 29007

ORCID ID: [orcid.org /0000-0003-1122-2613](https://orcid.org/0000-0003-1122-2613)

E-mail: tyryl2000@gmail.com

THE PROBLEM OF READINESS FOR FUTURE PROFESSIONAL ACTIVITY

Tatiana Scherban

INTRODUCTION

Important changes are taking place in the educational systems of European countries, caused by scientific and technological progress, informatization of society, rapid development of various social networks. These processes cause the corresponding changes in the “educational vector” of Ukraine. The current state of Ukrainian higher education leads to a new look at the problems of training specialists, the problem of forming the intellectual and creative potential of the individual. Along with solving problems of educational character, the university should create conditions for the development of professional and personal maturity of students, and promote the development of his/her personality.

The main task of the higher education institution is to train specialists who are needed by society, that is, specialists who can compete in the labor market, who are competent, have the existing willingness to perform modern production functions.

The today’s specialist is characterized by such a concept as professionalism. The fundamental structural units of professionalism are: the system of knowledge, the methodology of professional thinking, practical experience; creative approach to solving professional problems, clear strategy and tactics of performing activities. Shcherban¹. In connection with the abovementioned, the problem of training a creative personality of a professional is becoming extremely important today. Optimization of the process of a modern specialist preparation is possible provided the joint work of all its participants: the state, employers and higher education institutions. Moreover, each participant performs both its own functions and functions combined with the common goal of quality higher education.

¹ Shcherban, T. D. (2004) *Psychology of educational communication*. Kiev: Millennium.

The need to train a specialist should be governed by the state. The state must determine what kind and how many specialists are needed. It is also the state that determines the quality of theoretical and practical training through the framework of qualifications, through the regulatory requirements for the specialty.

The program of training of future specialists can be improved with the help of employers and practitioners. It is they who know what competencies future professionals need. The collaboration of higher education institutions and practitioners will help to adjust students' theoretical and practical training. Today, this area remains the least developed and predicted.

With regard to forming readiness for the future profession, this is the task of higher education institutions. The university should not only provide a grounded, innovative theoretical knowledge, form strong practical skills, promote the overall development of the student's personality, but also constantly monitor the quality of educational service in teaching. The leading role in this process is played by the personality of the teacher, he/she not only organizes the training and development of the future specialist, but is also an example of professionalism for the student. Therefore, the important task that higher education institutions must solve today is the formation of professional and psychological readiness of graduates for future practical activities.

Research on the problem of professional readiness is closely linked to the process of professional training and professional development of a specialist. Thus, studies of many scientists are aimed at developing the theoretical and methodological foundations of vocational training, at studying the problems of the development of professional identity: professional consciousness (N. Kucherovska, G. Lozhkin, A. Samoilova, N. Shevchenko, etc.), professional thinking and reflection (G. Ball, M. Verban, N. Poviakel, N. Prorok, etc.), professional identity (E. Zeier, A. Markova, N. Chepeleva, L. Schneider, T. Tytarenko, etc.). The necessity of studying the problems of vocational training taking into account the intentional essence, as well as in the context of interactive, perceptual, communicative, existential, functional, mental processes of mental development of the personality is emphasized (O. Bondareno, O. Leontiev, S. Maksymenko, L. Mitina, L. Sneider).

However, the problem is so deep and varied that the carried out research cannot exhaust it. Thus, the psychological peculiarities of forming readiness for future professional activity while studying at a higher education institution remain insufficiently studied. The relevance of the outlined problem is also caused by its practical importance for improving the process of training future specialists.

The purpose of the study is to theoretically and empirically investigate the psychological features of readiness for future professional activity.

The object of study is the process of vocational training in a higher education institution.

The subject of the study – psychological features of the development of readiness for professional activity during study at a higher education institution.

According to the purpose, object and subject of the study, the main tasks are defined: to analyze the existing conceptual approaches to the study of the problem; to reveal the peculiarities of the development of professional readiness during higher education; to reveal peculiarities of psychological readiness during higher education.

1. Psychological features of the development of professional readiness for future professional activity

The study of professional competence should take into account the following issues: peculiarities of professional thinking, professional reflection, ability to solve professional-practical tasks, constant professional self-development.

Employers point to the imperfection of the existing specialist training program. This problem is primarily determined by the obscurity, uncertainty of the benchmark criteria that higher education institutions are guided by, preparing a specialist. The presence of developed professionographic requirements for professionals almost does not have an active influence on specialist's formation in the learning process.

One of the promising directions of study restructuring at universities is the psychological concept of specialist training. The most important value of a specialist, which characterizes the top of the subject's perfection as a creative personality, is professionalism. According to the culture of professionalism in all spheres of society, one can judge at what level of civilization and social and economic progress it is.

The fundamental structural units of professionalism are:

- specificity of knowledge of the activity subject and methodology of professional thinking formed on this basis;
- sufficient experience;
- the creative nature of incorporating the gained experience into the process of finding the best options for the task;
- a clear indicative image of the strategy and tactics of the implementation of activities.

Based on the isolated components of the structure, professionalism can be defined as a creative synthesis of qualitatively peculiar professional knowledge and practical experience of the individual, which determines the choice of the optimal strategy and tactics of activity and ensures high efficiency of its implementation.

The main task of the higher education institution is to form students' professional readiness for future practical activity. That is, professional readiness is the ability to act professionally, that is, to make informed, appropriate decisions. For this, personality requires theoretical knowledge (which corresponds to innovative technologies of the relevant field), practical skills and abilities. It should be noted that professional thinking is formed on the basis of professional readiness. Professional thinking is an important category because it determines professional decision making.

A professional task is the basis of a specialist's thinking activity. Any professional activity is a constant process of solving practical problems. It should be borne in mind that this process is variable and meaningful. If the professional situation is straightforward, i.e. it does not require finding the best way to solve it, it ceases to be a task. The peculiarity of professional tasks is that the vast majority of them are usually not algorithmic. Therefore, solving such tasks is a creative task and is connected with all spheres of activity: gnostic, constructive, organizational and communicative.

Similarly to the stages of solving the problem functions of professional thinking can be distinguished: analysis of practical professional situations, formulation of professional tasks, drawing up a solution plan, implementation and adjustment of the plan, evaluation of results. Rozyn²; Moroz³.

² Rozyn, V. M. (1997) *Visual culture and perception: how a person sees and understands the world*. Moscow: Editorial.

Therefore, the thinking of a specialist is practical, because it is directly involved in professional activity. It should be borne in mind that the orientation of thinking activity is determined by a practical task. Each task involves a contradiction between the sought and the given, that is, their inconsistencies are relevant and at the same time there is the potential for disclosing the desired through the given. During the process of solving a problem, a person correlates what is given and what is sought, and as a consequence, builds a scheme of his/her actions, a scheme that anticipates future results. This guiding basis of actions is called differently (the thinking model of the desired, the image of the future result, the conceptual scheme of the decision, the orienting basis of actions, etc.), but in each case it is about the internal thinking models that direct and regulate human actions.

We emphasize that such thinking models are constructed, taking into account the more general categories and ideas inherent in man, and are specified according to the given conditions and requirements of the task. The form of such models can be varied (visual images, specific ideas, verbalized concepts, etc.). Professional tasks should be considered as structural units of thinking activity.

Professional thinking is a form of practical activity that is implemented in specific conditions and situations. The main component of professional thinking of a professional is the decision-making process. It is in this process that the intellectual, emotional and volitional qualities of the individual are combined. The criterion of professional thinking is the system of categorical structures. Categorical thinking structures make it possible to analyze, understand the information received, categorize sensory data. Lyepyn'sh⁴.

M.H.Yaroshevskiy⁵ distinguished the categorical nature of thinking, because the object of thinking is represented in a system of categories that corresponds to the development of the scientific field. Categorical structures direct thinking to find the essential properties of the object and serve as a general source scheme. At the same time, the

³ Moroz, A. H. (1980). *Professional adaptation of a young teacher*. Kiev: Ministry of Education of the USSR.

⁴ Lyepyn'sh, E. K. (1986) *Categorical orientations of knowledge*. Riga: Zinatne.

⁵ Yaroshevskyy, M.H. (1998). The wrong opinion about the incompatibility of the natural-scientific way of thinking with the value-moral view of the essence of man. *Person*, 2, 46–48.

transfer of theoretical knowledge into practical activity occurs in stages through the transformation of theory into practical actions.

Thus, the theoretical knowledge obtained at the university. Kulyutkina, Sukhobskoy⁶ is transformed into a system that is consistent with the logic of solving professional problems. However, this knowledge is limited to specific disciplines, determined by their goals and objectives. They are the result of an analytical solution of scientific and theoretical problems, and have a generalized and abstract character.

According to the theory of L. S. Vygotsky, a person acquires concepts (interiorizes them) initially in the process of a detailed external dialogue with others, which gradually becomes an internal dialogue. In internal communication, verbal utterances are reduced, curtailed, turning into peculiar idioms, “condensations”, that are understood only by the person himself/herself. In order to reconstruct them, conditions should be created that would allow to externalize these individual ideas, as if to bring them out. Vygotsky⁷.The main condition for this is an external detailed dialogue with other people. Thus, for the development of an individual’s ability to self-manage his/her activities, the process of interiorization and the process of exteriorization are equally important. A person, engaging in interaction with other people, assimilates various functional positions and roles and, on this basis, transforms the “external” into the “internal”. However, in order to develop internal functions, a person must also move from “internal” to “external”, entering into active interpersonal interaction, enriching himself/herself with new functions and means of regulating actions.

Objective human activity should be preceded by internal (ideal), i.e. understanding the purpose of actions, expected results, planned actions, conditions for their implementation, etc. As S. L. Rubinstein⁸ wrote, the ratio of goals and conditions determines the task that must be solved by the action. Conscious human action is, to a greater or

⁶ Kulyutkina, Yu. N. and Sukhobskoy, H. S. (1990) *Teacher Thinking: Personal mechanisms and conceptual apparatus*. Moscow: Pedagogy.

⁷ Vyhotsky, L. S. (1982) *Collected Works: In 6 vols. V. 2*. Moscow: Pedagogy.

⁸ Rubynshhteyn, S. L. (1958) *About thinking and ways of its research*. Moscow: AN SSSG.

lesser extent, a conscious solution to a problem. Conscious actions, emphasized O. M. Leontiev, is a process, subordinated to a conscious goal, which leads to a predicted result. Along with the birth of the action, this basic “unit” of human activity, there is a basic, social by nature “unit” of the human psyche – a reasonable sense for the person of what his/her activity is directed at.

We emphasize: in the practical thinking of the personality there are always two counter processes. On the one hand, the individual constantly receives information about the real situation of the activity, the content of which allows him/her to build a sensually-specific idea of this situation. On the other hand – it maintains the directions of collecting such information, selectively treating it, systematizing it and generalizing it – all processes are regulated on the basis of those criteria structures inherent in the personality.

The process of transforming theoretical knowledge into empirical constructive schemes, directly correlate with specific practical situations, ensures the efficiency and effectiveness of this knowledge. Mastering theoretical knowledge by an individual and accumulating practical experience is a necessary but insufficient condition for professionalism. Only constant reflection, analysis and generalization of one’s own experience allows a person to develop as a professional. Rubynshteyn⁸.

Successful implementation of such a transformation is an important condition for the development of professionalism. Thus, theoretical knowledge reveals the essence and laws of objects and phenomena, perform the function of general principles that guide professional activities. However, their practical implementation by a person depends on specific conditions. In this case, it must be borne in mind that practical activity has its own special and specific laws. Professional problems that a specialist must solve are complex. For their successful solution, the individual first synthesizes (integrates) the knowledge gained in the process of studying theoretical disciplines, and then includes them in the categorical apparatus of professional thinking, that is, educational and subject information goes through a complex process of transformation, the inclusion of professional thinking in the categorical apparatus.

A significant feature of professional thinking is that the theoretical knowledge of the “categorical problem” in the process of solving

practical and professional problems is used automatically, abbreviated, reduced. This is due, firstly, to the general tendency towards transformation, coagulation, reduction of knowledge into certain “condensations”, which are directly the cognitive basis for making professional decisions, and, secondly, the impossibility of retaining in the minds of the whole set of concepts that determine the necessary solution.

It is at the university that students acquire professionally theoretical knowledge, professional and practical skills, learn to solve professional problems. In turn, vocational training contributes to the formation and development of professional thinking and professional reflection. All of the above makes up the content of students’ professional readiness.

The organization of high-quality professional training is impossible without practitioners; they are well aware of the subtleties, innovations, and features of the profession. So, the role of employers in the process of formation of professional readiness is especially important today. Practitioners should determine the criteria for theoretical and practical training. Each university should constantly monitor the quality of student training. Round tables, discussions with employers should become systemic and constant. Through these discussions, training can be improved. Practitioners determine the criteria, competencies (criteria of theoretical knowledge and practical skills) that universities should include in the curriculum, in the list of optional disciplines, in the content of subjects. Good results can be achieved by engaging practitioners in the training of future professionals as teachers and practice instructors.

2. Features of the development of psychological readiness for future professional activities

The problem of forming the psychological readiness of future specialists is the key to understanding the psychological mechanisms of effectiveness of professional activity and vocational training. The question of the psychological characteristics of the readiness of higher educational institutions graduates is the subject of research by many scientists (Virna Zh. P., Hordienko V. I., Diachenko M. I., Kandybovych L. A., Klymov E. A., Kuzmina N. V., Maxymenko S. D.,

Moliako V. A., Malkhazov O. R., Smulson M. L., Chepeleva N. V. and others). As the analysis of the literature on the problem showed, on the one hand, a considerable amount of results of various studies on the psychological features of formation and development of readiness for future professional activity has been accumulated, and on the other hand, the complexity, contradiction and insufficiency of practical and theoretical developments of this phenomenon are noted.

The analysis of professional activity shows that it is determined by various conditions, factors. The process of adaptation to the profession involves the development of optimal strategies for professional activity. Malkhazov⁹. One of the effective ways of improving the quality of professional activity is the development of the necessary psychological qualities of the individual.

Psychological readiness is the ability to mobilize one's personal potential in order to make professional decisions quickly and promptly in an ever-changing environment. The psychological readiness of the individual for professional activity is manifested primarily in his/her ability to organize, execute and regulate his/her activity. Strel'byts'ka¹⁰.

These are the characterological and personal characteristics of a person. Of great importance in psychological readiness are: interest and appropriate motivation for the profession; volitional efforts; positive emotions; character of personality. Psychological readiness is characterized by psychological qualities of character, communicative competence. On the basis of psychological readiness, a professional character is formed.

Studying this issue requires concerted action with employers. It is they who can expertly assess not only the level of professional training, but also indicate the psychological difficulties of the adaptation period of graduates of higher educational institutions. To answer this question for many years, we systematized sociological studies regarding the period of adaptation of graduates in various professional activities. For

⁹ Malkhazov, O. R. (2010) *Psychology of work*. Kyiv: Center for Educational Literature.

¹⁰ Strel'byts'ka, S. M. (2016) Psychological readiness for professional activity of future social workers at universities. *Collection of scientific papers of Kherson State University. Pedagogical Sciences*, 69(2), 147–151.

this, a questionnaire was developed for employers who determined the difficulties of young specialists. Then these difficulties were ranked. Of course, all these difficulties concerned the adaptation period of young specialists. Experts who evaluated the difficulties of entering the profession were reputable specialists in the relevant field, with at least 15 years of experience.

The following results have been obtained. In the 1st rank position, the experts included difficulties caused by the lack of ability to understand the behavior of others, their motives. Rank II includes difficulties in failing to take criticism and personal emotional imbalance. III rank – inability to organize their own activities, the activities of others. IV rank – difficulties in communication and inability to persuade others, conflict communication. Also, in interviews, experts – practitioners noted that young specialists find it difficult to adapt in the team, do not know how to interact with colleagues, and are characterized by conflict. According to experts, such difficulties are inherent in one third of young professionals who come to work for them. It should be noted that these difficulties are components of psychological readiness for professional activity.

The contradictions of the adaptation period of the young specialist, as we see, is manifested on a personal level as a contradiction between the new professional status and awareness of it. By this time, the main activity of the individual was training. And now everything happens differently, that is, the specialist must be a competent specialist. He/she must be able to independently organize and regulate his/her activities, be able to interact with others, that is, become the subject of a new professional activity for him/her.

Obviously, the young specialist needs adaptation time for the practical development of his/her new functions, for building relationships with others, with colleagues, with the administration, and the like. That is, as a subject of professional activity, he/she must be competent. To become competent is to acquire a new quality of personality, that not only possesses comprehensive knowledge and whose opinion is significant, authoritative, but has acquired a system of communication abilities, business cooperation abilities.

A young specialist from the first working days should be able to make and be responsible for his/her own decisions. Such a change in the main activity is usually accompanied by a change in the acquired

stereotypes and perceptions. It has been established that both the administration and the young specialists have a typical opinion that all the adaptation challenges of university graduates are determined by the lack of practical experience. Of course, this fact does occur, but it is important that the real causes of difficulties are deeper and more personal – the need to find an adequate line of behavior in a professional role, in understanding the essence of professional phenomena and facts. Because without highlighting for oneself the lines of behavior in the role of a specialist, the specialist will act by trial and error, intuitively, similarly to the actions of colleagues. That is, his/her professional actions will have a situational character, the specialist in his/her professional activity will operate with a narrow set of professional methods and communication skills confirmed by his/her own experience. Obviously, all these difficulties are based on the ability to communicate, the ability to interact with others in practical activities.

It has been proven that a person is able to reflectively relate to his/her activities as a result of mastery (interiorization) of social relations between people. After all, only in interaction with others, the personality can not only understand the other, to evaluate oneself through the eyes of this other, but also to acquire the ability to reflexively perceive oneself.

It should be generalized that after solving a professional task (and on the basis of it), the person must solve the communicative task of organizing practical activity. W. O. Kahn-KalikRubynshteyn⁸ notes that the communicative task is the consequence of the professional task, follows from the latter and is determined by it. That is, the communicative task is the same professional task, but translated into the language of communication.

Accordingly, professional communicative interaction is implemented according to the following algorithm: professional task and its solution; a system of methods chosen to implement the decision; a system of communicative tasks that are necessary for the implementation of actions; organization of professional interaction. Thus, in the structure of professional communication, we outline the stages: modeling; organization of communication; communication management; analysis of realized communication. It should be emphasized that professional communication is a complex and

internally contradictory combination of perceptual, communicative, interactive components.

All the features of professional communication are realized precisely by communicative competence. This concept of “communicative competence” has been carefully analyzed by Yu. M. Emelianov¹¹. The scientist defines this concept as a person’s ability to navigate communication situations based on knowledge and sensory experience. Communicative competence requires awareness of the individual: own needs and values; own perceptual skills, readiness to perceive the new; own capabilities; own feelings and emotional states; ways to personalize the environment; level of culture. Yu. M. Emelianov classifies the category of “communicative competence” in the ideological and moral concepts that govern the entire system of the individual’s relationship to the world and to oneself.

L. A. Petrovskaya¹² considers this concept more operationalized. The scientist emphasizes the importance of knowledge of social and psychological factors and the ability to use them in practice. Such competence involves understanding the motives, needs, strategies of behavior, both one’s own and others.

Effective professional and practical communication should implement the subject-subjective principles that reproduce the level of psychological positions of its participants.. Many scholars (V. Ya. Liaudis, A. M. Matiushkin, A. Ya. Ponomariov, O. K. Tykhomeyova, A. Kharash, etc.) point to such aspects of communication as its reproductive and productive sides. This reflects the transfer to the sphere of communication of the idea about two types of activity and, accordingly, of two types of tasks: creative – productive and reproductive – routine. Accordingly, reproductive communication uses standard procedures that can be algorithmized. Productive communication cannot be formalized because it is characterized by the emergence of new motives, goals, operations and procedures. Therefore, all of the above properties can be considered characteristics of communicative competence.

¹¹ Emel’yanov, Yu. N. (1985). *Active socio-psychological training*. Leningrad: LSU.

¹² Petrovskaya, L. A. (1989) *Communication competency: socio-psychological training*. Moscow: Moscow State University.

The study of communicative competence is associated with such a concept as communication style. Communication style is an integral characteristic of interaction, that is, these are individual-typological features of social and psychological interaction. Comparison of various classifications (S. L. Bratchenko, V. M. Miasyshchev, S. O. Shein) allows to distinguish a number of invariant characteristics and differentiate different communication styles on this basis. For example, such as: dialogical, altruistic, conformist, passive, authoritarian, monological, manipulative, conflicting, etc.

According to the manifestation of activity in communication, the passive style (in which the interaction between the parties of communication is superficial), we will consider as the output (initial) implementation of tendencies of communication. Then, we can obviously argue that there are two opposite tendencies in the development of communicative competence of the individual: to dialogical communication and to monologic communication.

The purpose of orientation to dialogical communication is to form cooperation in the activity. Such communicative guidelines reflect optimism, goodwill, demand, trust. Its carriers are characterized by: openness, empathy, desire to understand, respect, desire for self-development, high enough and adequate self-esteem, quick orientation in communication, developed sense of humor, etc.

Opposite to dialogical communication is the orientation to monologic communication. Such communicative guidelines reflect: self-centeredness, self-interest orientation; manipulation, sometimes aggressive behavior, desire for domination.

Therefore, readiness to communicate with others (colleagues, clients, management, subordinates) is the basis of psychological readiness for professional activity.

Considering the fact that it is the communication style that determines the psychological readiness, which serves as an integral characteristic of practical activity, which displays the moral and ideological attitudes of the person, the level of his/her sociability, the aim of our study was to identify communicative trends in young professionals and experienced workers. A thorough diagnosis of communication styles is provided by the method of "interpersonal diagnosis" T. Leary. The studied group consisted of 95 people (50 workers with more than 5 years of experience and 45 young

specialists). The results obtained in the following two groups of subjects served as material for comparison. The following results have been obtained.

In the group, with a work experience of more than 5 years, 7.0% of employees have a passive style of communication, dialogical communication or tendency to it have respectively 17.0% and 20.0% of the studied. 24.0% of respondents are characterized by the presence of monologic style, 32.0% tend to it. It should also be noted that 39.0% of employees consider their professional relationships as good, 44.0% as satisfactory and only 17.0% consider them destructive.

In the group of young specialists (work experience of up to 5 years) there are 3 subgroups of respondents: with work experience up to 1 year, with work experience from 1 to 3 years, with work experience from 3 to 5 years.

In the first group (with experience up to 1 year) the following results have been obtained: passive style – 28.0%. Conversational style and tendency to it was found in 15.0% and 29.0% respectively. 18.0% and 10.0% are characterized by the presence or tendency to develop a monologic style.

In the second group (with experience from 1 to 3 years) the numerical results are as follows: 22.0%, 16.0% and 30.0%, 17.0%, and 15.0%, and in the third group (with experience from 3 to 5 years) – 18.0%, 22.0% and 18.0%, 24.0% and 18.0%.

The results obtained indicate the following trends:

- stable communicative attitudes, which contribute to the successful solution of professional tasks, are formed only in a small number of graduates (15.0%), which is a drawback in the process of forming psychological readiness for professional activity at higher educational institutions;

- 28% of graduates have superficial communication guidelines. Note that they can easily change in any direction;

- a significant part of graduates has stable communicative attitudes that impede professional communication (18.0%).

It is also advisable to point out that during the adaptation phase, the vast majority of specialists with a well-established communicative tendency seek to implement it. The presence of a tendency for the development of dialogic communication does not yet indicate its development in specialists. During the first five years of practice, the

number of people characterized by passivity in communication decreases, but not enough (from 28.0% to 18.0%). This is evidence of the ineffectiveness of the adaptation period.

We believe that the highlighted trends prove that it is not necessary to rely on the natural course of adaptation processes by young specialists. It is necessary to create conditions for ensuring the effective entry of graduates into professional activities.

An important criterion for adapting to a professional activity is job satisfaction. Most of the respondents (72.0%) state that their actual practical work does not correspond to the imaginary one formed during their studies at higher education institution. The manifestation of negative, critical judgments about the actual performance of professional activity is alarming.

We determined job satisfaction through a survey with young professionals. We found a direct relationship between satisfaction, that is, adaptation and communication style (see Table 1). And with the acquisition of professional experience, this connection is enhanced. For professionals who have a tendency for a dialogical style of communication, the number of dissatisfied professionals decreases with the acquisition of practical experience. This proves that a person who is able to hear another one, better and more effectively builds business relationships in the team. Professional experience is also the experience of developing relationships. In such cases, the adaptation period for the young specialist is easier and faster, the individual easier joins the team, becomes part of it. As for specialists with a tendency toward monologic communication, one should point out the growing number of people dissatisfied with their professional activity. That is, the inability to build professional relationships is enhanced in accordance with the experience (up to 3 years). However, this figure is reduced for specialists with practical experience of up to 5 years. This is evidence that some specialists have learned to build relationships, adapt and “join” the team. However, among these specialists there are also individuals who have changed their professional activity. Of course, change will not teach to hear another, to conduct business discussions, to communicate properly. Therefore, style of communication, communicative competence influence satisfaction with professional activity. Yes, because communicative competence is the basis for building effective relationships in the work team. The

sociable young specialist adapts better to new activities, to new colleagues, to new conditions.

Table 1

**Number of specialists who are dissatisfied
with their professional activity**

Communication Trend	Professionals with experience (%)		
	up to 1 year	up to 3 years	up to 5 years
Dialogue style	18	15	12
Monologue style	27	43	36

The survey of young professionals made it possible to highlight the difficulties associated with professional activity dissatisfaction: social assessment of professional activity in modern conditions; peculiarities of their own character. The indicated reasons for the first group are the same for groups with different professional backgrounds. The reasons for the second group depend on communicative competence. It is they who determine dissatisfaction with the activities of those individuals who have a passive style of communication or tend to develop monological communication. Among those who are characterized by a dialogical style of communication or tend to develop it, the number of dissatisfied with their profession is much less.

Thus, the attitude of professionals to their profession is significantly dependent on their communication skills (more effective is the orientation to dialogical communication), and these indicators are least affected by professional experience.

It is in the student environment that young people master the stable life orientations necessary for full social and professional interaction, form a personal readiness for independent decision making, responsibility for actions, develop communicative competence. All these are components of psychological readiness for future professional activity.

CONCLUSIONS

Society has become more informative, technological, namely: information technologies become indispensable in all spheres of life, any information can be found on the Internet, everyone uses different gadgets, information and its technologies are developing rapidly every day.

All these changes cannot but affect the vocational training system of higher education institutions. The problem of vocational training is in the field of study of various sciences, especially psychology. In many ways, this problem is key to understanding the psychological mechanisms of job security.

The modern specialist is characterized by such a concept as professionalism. The fundamental structural units of professionalism are: knowledge of the subject of activity, methodology of professional thinking, practical experience, creative approach in the process of searching for optimal solutions to the problem; clear indicative image of strategy and tactics.

The main task of higher education is to train specialists who are competent, have a professional and psychological readiness for future professional activity.

Professional readiness is the ability to act professionally, to be able to make good and informed decisions. Professional readiness includes: features of professional thinking, professional reflection, the ability to solve professional and practical tasks, constant professional self-development.

Professional thinking has practical character and orientation is determined by the task. Functions of professional thinking: analysis of practical professional situations, formulation of professional tasks, drawing up a plan of solution, implementation and adjustment of the plan, evaluation of results. The criterion for professional thinking is a system of categorical structures. Categorical structures of thinking make it possible to carry out the analysis, comprehension of the information received, categorization of sensory data.

The peculiarity of professional thinking is that the theoretical knowledge of the “categorical problem” in the process of solving practical and professional problems is used automatically, abbreviated, reduced. This is due, firstly, to a general tendency towards transformation, coagulation, reduction of knowledge into certain “condensations”, which are directly cognitive basis for making professional decisions, and, secondly, the inability to keep in mind the whole set of concepts that determine the necessary solution.

Psychological readiness is the ability to mobilize one’s personal potential in order to make professional decisions quickly and promptly in an ever-changing environment. Psychological readiness includes:

interest, professional motivation, willpower, positive emotions, personality, communicative competence.

Communicative competence is an important factor in psychological readiness for future professional activity. An empirical study of communicative competence has made it possible to identify the following trends:

- stable communicative attitudes, which contribute to the successful solution of professional tasks, are formed only in a small number of graduates (15.0%);

- 28% of graduates have superficial communication attitudes. Note that they can easily change in any direction;

- a significant proportion of graduates (18.0%) have stable communicative attitudes that impede professional communication.

- the overwhelming majority of specialists with a well-established communicative tendency seek to implement it during the adaptation phase.

- the attitudes of professionals to their profession depend substantially on their communication skills (more effective is the orientation to dialogical communication), moreover, these indicators are less affected by the experience of professional work.

The survey of young professionals made it possible to highlight the difficulties associated with dissatisfaction with professional activity: social assessment of professional activity in modern conditions; peculiarities of own character.

A significant potential for the development of professional and psychological readiness is the change of the system of training and teaching at higher education institutions. Today, higher education should provide training for specialists using the latest information technologies, and apply interactive methods to teaching.

Society is interested to get a specialist who knows well not only specialty, but also related industries, is able to use information tools. The graduate should know where to find the information he/she needs and have a varied professional mindset that (if necessary) will allow him/her to resolve the practical situation in various ways.

The organization of quality vocational training is not possible without practitioners. It is they who determine the criteria, competences (theoretical knowledge and practical skills) that should be included in the curriculum, the list of optional disciplines, and the content of the subjects.

Good result gives the involvement of practitioners in the training of future specialists as teachers and practitioners.

It is in the student environment that young people master the stable life orientations necessary for full social and professional interaction, form a personal readiness for independent decision making, responsibility for actions, develop communicative competence. All these are components of psychological readiness for future professional activity.

Therefore, an important task that higher education institutions must address today is to shape graduates' readiness for future practical activity.

SUMMARY

The informatization and technologicalization of society have led to changes in higher education. Along with solving the problems of educational character, the university should create conditions for the development of students' professional and psychological readiness for future professional activity.

Professional readiness is the ability to act professionally, to be able to make good and informed decisions. Professional readiness includes: features of professional thinking, professional reflection, the ability to solve professional and practical tasks, constant professional self-development. Functions of professional thinking: analysis of practical professional situations, formulation of professional tasks, drawing up a plan of solution, implementation and adjustment of the plan, evaluation of results. The criterion of professional thinking is the system of categorical structures.

Psychological readiness is the ability to mobilize one's personal potential in order to make professional decisions quickly and promptly in an ever-changing environment. Psychological readiness includes: interest, professional motivation, willpower, positive emotions, personality, communicative competence. An empirical study of communicative competence has made it possible to identify its main development tendencies and to outline the difficulties of specialists' adaptation process.

A significant potential for the development of professional and psychological readiness is the change of the system of training and teaching at higher education institutions.

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Information about the author:

Tatiana Scherban

Doctor of Psychology, Professor,
Mukachevo State University
26, Uzhgorodska str., Mukachevo,
Transcarpathian region, 89600, Ukraine
ORCID ID: [orcid.org /0000-0002-3702-8029](https://orcid.org/0000-0002-3702-8029)
E-mail: schtata2015@gmail.com

NOTES

Publishing house “Liha-Pres”
9 Kastelivka str., Lviv, 79012, Ukraine
44 Lubicka str., Toruń, 87-100, Poland

Printed by the publishing house “Liha-Pres”
Passed for printing: November 25, 2019.
A run of 150 copies.