8. Malkina-Pyh I. G. Jekstremal'nye situacii / I. G. Malkina-Pyh. – M. : Izd-vo Jeksmo, 2005. – 960 s. – (Spravochnik prakticheskogo psihologa).

9. Metodichnij posibnik dlja fahivciv, jaki vprovadzhujut' korekcijni programi dlja osib, jaki vchinili nasil'stvo v sim'ji / [ukladachi: Mustafajev G.M., Dovgal' I. I.]. – K., 2011. – 192 s.

10. Problema nasil'stva v ukraïns'kih sim'jah. Sociologichne opituvannja / za red. Pavlish S. O. – K. ; Zaporizhzhja : Drukars'kij svit, 2010. – 52 s.

11. Tarasov V. K. Iskusstvo upravlencheskoj bor'by. Tehnologii perehvata i uderzhanija upravlenija / V. K. Tarasov. – M. : Dobraja kniga, 2003. – 480 s.

12. Frejd Z. Psihologija bessoznatel'nogo : sb. proizvedenij / [sost., nauch. red., avt. vstup. st. M. G. Jaroshevskij] / Z. Frejd. – M. : Prosveshhenie, 1990. – 448 s.

13. Fromm Je. Chelovek dlja sebja / [per. s angl. i poslesl. L. F. Chernyshevoj] / Je. Fromm. – Mn. : Kollegium, 1992. – 253 s.

14. Harry Stack Sullivan. The interpersonal theory of psychiatry / Stack Sullivan. – W. W. Norton & Company, Inc. 1953.

15. Ciganchuk T. V. Prichini ta naslidki nasil'stva nad zhinkoju v sim'ji / T. V. Ciganchuk, D.D. Ljah // Praktichna psihologija ta social'na robota. – 2014. –№ 3. – C. 64.

Butko, V.V. Importance of offenders' formation of feeling of guilt in domestic violence victims. The article deals with self-concept of women-victims of domestic violence. The author analyzes the stories of 19 women who came for psychological help and makes a conclusion that their problems stemmed from at least one of the four types of domestic violence. The analysis of the results of a survey done on 19 women who suffered from domestic violence using *T.Leary's Interpersonal Behavior Circle* as well as the pictures of *Inexistent Animal* (*A.L.Venger's* technique) and their verbal descriptions done by the women's 16 children allowed the author to conclude that in building the relationships with children their parents used the same tactics as in building the relationships with each other. Women-victims of domestic violence were shown to behave adaptively in interpersonal relationships and to coordinate their actions with other peoples' opinion. They also lacked self-confidence, conformed to other people, tended to play down their dreams and desires, had low self-esteem, obeyed the authorities, as well as avoided self-analysis and self-criticism.

Keywords: domestic violence, self-concept, self-esteem, self-respect, self-realization, guilt, victim's behavior, narrative, suggestibility.

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УДК 159.925
Zaporozhets T.O.
EMOTIONAL INTELLIGENCE, SITUATION AWARENESS AND SITUATIONAL PSYCHOLOGICAL READINESS IN AIR TRAFFIC CONTROLLERS

Запорожець Т.О. Емоційний інтелект, ситуаційна обізнаність та ситуативна психологічна готовність фахівців управління повітряним рухом. У статті розглянуто роль емоційного інтелекту як основної детермінанти у формуванні ситуаційної обізнаності та ситуативної психологічної готовності фахівців управління повітряним рухом (УПР). Представлена загальна характеристика специфіки професійної діяльності фахівців УПР. Проаналізовано психологічний зміст професійних обов'язків фахівців УПР. Представлені роль психологічної готовності і ситуативної психологічної готовності у професійній діяльності фахівців та підходи до їх визначення. Визначено поняття ситуативної обізнаності та її взаємозв'язок з ситуативною психологічною готовністю. Представлено поняття емоційного інтелекту та підходи до його визначення. Охарактеризовані основні моделі емоційного інтелекту.

Ключові слова: емоційний інтелект, психологічна готовність, ситуативна психологічна готовність, ситуативна обізнаність, управління повітряним рухом, фахівці управління повітряним рухом.

Запорожец Т.А. Эмоциональный интеллект, ситуационная осведомленность и ситуативная психологическая готовность специалистов управления воздушным движением. В статье рассмотрена роль эмоционального интеллекта как основной детерминанты в формировании ситуационной осведомленности и ситуативной психологической готовности специалистов управления воздушным движением (УВД). Представлена общая характеристика специфики профессиональной деятельности специалистов УВД. Проанализировано психологическое содержание профессиональных обязанностей специалистов УВД. Представлены роль психологической готовности и ситуативной психологической готовности в профессиональной деятельности специалистов и подходы к их определению. Определены понятие ситуативной осведомленности и ее взаимосвязь с ситуативной психологической готовностью. Представлено понятие эмоционального интеллекта и подходы к его определению. Охарактеризованы основные модели эмоционального интеллекта.

Ключевые слова: эмоциональный интеллект, психологическая готовность, ситуативная психологическая готовность, ситуационная осведомленность, управление воздушным движением, специалисты управления воздушным движением.

The problem definition. The rapid development and extension of air transportation system for the last 20 years have resulted in the importance of improvement and maintenance of aviation safety. Any type of aviation accidents can have a huge impact on ecological, social and economical spheres, which can lead not only to significant financial costs, such as administrative and medical expenses, time inputs with the involvement of a wide range of specialists to investigate the specific case, but also can cause injuries of human beings and fatal outcomes.

To meet the growing demand, air traffic services massively depend on the ability of air traffic specialists to interact with the new systems. As a result, most of the interventions are designed to promote the development of more useful and reliable equipment in order to diminish the level of errors and maintain safety. Even though the whole air transportation system is based on the complex interaction of air traffic, airspace and air traffic controller's activities, the role of the human operator has not always been considered when systems were developed or procedures were changed. According to the latest ICAO reports, at least 80-85% of aviation accidents were caused by the human factors. Only after some significant research was done on the impact of the workload and cognitive characteristics on the efficiency of air traffic controller's job and air traffic in general, we've started to advance our understanding on the influence of human factors. Considering that the in-flight safety is determined by the level of functioning of both work structures and aviation human–technological systems, each of its elements (air traffic controllers, pilots, aircraft, computers etc) relates with each other and they work together to enhance system safety, productivity and efficiency. Air traffic controllers serve as a key component in this complex interaction, whose mental workload frequently brings to changes in performance, well-being and health of specialists. In this paper we touch upon factors which could enable the effective maintenance of reliability of air traffic controllers for the further improvement of air transportation system's safety.

The analysis of recent research and publications. In general, the role of human factor in air traffic controllers was regarded by several scholars such as M.S. Smolensky, E.S. Stein, F.T. Durso etc., who underlined the importance of investigation of psychological determinants which influence the job performance. The individual differences in performance were put as a key component by A.J. Tattersall, T.H. Monk, R.S. Lazarus, who basically presented the first ideas on the psychological readiness of the air traffic controllers as a predisposition to work in a risky environment.

Correspondingly, **the main goal of this paper** is to highlight the role of emotional intelligence in determination of situation awareness and situational psychological readiness in air traffic controllers.

Discussion of the main results of investigation. It's been a constant question for a consideration whether there are differences between individuals in the way they perform tasks and whether these differences can affect the accuracy and efficiency of air traffic controllers (further – ATC) job. However, the individual differences, especially mental processing, decision making skills and psychoemotional characteristics of ATC are one of the most important determinants of their ability to deal effectively with the task demands of their environment. Air traffic controller's environment is filled with an overabundance of physical and symbolic information presented in visual, tactile and auditory form or modality. The research conducted on the job analysis of en-route controllers by Ammerman, Bergen, Davies, Hostetler, Inman and Jones [4] showed that there's six main activities such as situation monitoring, resolving aircraft conflicts, managing air traffic sequences, routing or planning flights, assessing weather impact, managing sector/position resources, which also involve 46 sub-activities and 348 distinct tasks [6]. Another important feature of ATC job is communication and coordination between the ATC specialists and the other crew members as one of the requirements for successful ATC performance. There is a body of research to suggest that errors in communication and coordination can be presented as the causal factors in ATC failures [16].

As a result, ATC are expected to make decisions and solve problems in a changeable environment within a short period of time following the operational standards and expecting no errors to be occurred. The job of ATC requires not only the appropriate skills, professional knowledge and experience from its specialists, but also the specific personality variables and individual factors, which enable them to form the psychological readiness to perform efficiently in a high risk and safety sensitive environment that may prove to be a daunting challenge.

The phenomenon of psychological readiness has been researched by several scientists. Psychological readiness can be defined as an integral dynamic state, which facilitates the internal disposition to the effective job performance and mobilization of inner resources. According to the studies that been made, there are two approaches to define psychological readiness: functional and individual. The functional approach is based on the assumption that readiness is a certain mental state of a human, which appears to be either short-term or long-term. It can be generally characterized as the ability of a human to mobilize the mental and physical resources. The individual approach considers psychological readiness as a manifestation of the willingness of a human to express his/her personal traits, which can be explained by the natural predisposition of a human to perform effectively [1].

The state of readiness is influenced by the specific conditions in which the professional activity takes place. Dyachenko and Kandybovych distinguish long-term and situational forms of psychological readiness. In general, the long-term readiness includes: a positive attitude towards the profession and professional activities, adequate professional traits which correspond to job requirements, temperament, motivation; professionally important features of perception, attention, emotional and volitional and mental processes; knowledge and skills that are required for certain activities. Situational readiness is constructed by such factors as: an understanding of a specialist task, awareness of personal responsibility for his/her decision, the desire to succeed and develop a clear plan of action. Thus, situational readiness depends on long-term readiness and determines its performance [2].

Situational psychological readiness – is a dynamic state of personality, characterized by internal disposition on certain activities and behaviors through the mobilization of inner resources for its coherent, purposeful implementation.

Considering that air traffic controllers must maintain up-to-date assessments of the rapidly changing location of each aircraft (in three-dimensional space) and their projected future locations relative to each other, along with other pertinent aircraft locations (destination, fuel, communications, etc.) situational psychological readiness serves as a preconditioned state of the air traffic controllers to perform in the demanding ATC environment.

To sum up, the role of situational psychological readiness in ATC can be defined using the following features:

1. Emotional disposition to work;

2. Identifying and understanding the action plan in accordance with the goals and objectives of the turn-based programming;

3. The ability to control your own emotional state;

4. Ability to understand and separate the elements of ATC situation; keep the track of its current position and make predictions about future development;

5. Mobilization of inner resources to perform effectively.

As it was assumed, situational psychological readiness enables ATC to perform effectively by accurately sorting out and projecting the path of the constantly changing number of aircraft to maintain the level of minimum separation and safe, efficient landing and takeoff operations. In order to maintain the up-to-date assessments of the "picture", ATC are called on to mobilize inner recourses to have complete and accurate situation awareness (SA), which is commonly defined as the perception of the elements in the environment within a volume of time and space, the comparison of their meaning and the projection of their status in the near future [7]. The research conducted by Kinney on operation errors in ATC shows that in nearly 91-95% of the cases, the errors occurred because of the influence of such factors like attention, judgment and communications, which are closely related with SA, as its main phases, such as perception of the elements in the environment, comprehension of the current situation and projection of the future status serve as a predisposition to effective decision making and performance [9]. SA is usually described as a characteristic of ATC in a particular environment, which is unstable and changeable and typically affected by the actions and decisions of ATC that brings up another important and specific feature of SA such as projection and orientation on future events. SA should be distinguished from the other cognitive constructs such as understanding or perception, but both mental operations are included in it.

Overall, it can be assumed that poor SA can be clearly seen in the evidence of the occurred operational errors in ATC. Thus, good SA is a crucial condition of efficient ATC performance and finding the ways to maintain a high level SA in controllers is a fundamental goal to enhance the system safety [7].

Some researchers associate SA with situational psychological readiness as both of these phenomena determine the inclusion of ATC into a working environment. We offer to distinguish situational readiness and SA by highlighting that the latter is based on a cognitive mechanism of assimilation of relevant information (e.g., aircraft locations, altitudes, destination, etc) while situational readiness includes emotional regulation of a specialist in accordance with the current ATC situation and predetermines the inclusion on physical and emotional levels [10]. However, we suggest that situational psychological readiness is a precondition and one of the main factors that influence good and accurate SA, which brings up the main question of what individual factors affect the formation of situational psychological readiness as well as SA and how they can be possibly manipulated/trained in order to improve personnel selection and task and job design and training.

The key point in the formation of situational psychological readiness of ATC lies in the emotional competence, which is expressed in the ability to deal with emotional experiences, manage the emotional state, being empathetic towards the people around. All of these characteristics are related to emotional intelligence, which has become an important body of research over the past decade.

The phenomenon of emotional intelligence (EI) was presented in several studies (e.g, Bar-On, 1997; Goleman, 1995; Mayer & Salovey, 1990). Emotional intelligence is associated with multiple successful outcomes in the domains of mental health, social relationships and work (e.g., Lyubomirsky, King, & Diener, 2005; Mayer, Roberts, & Barsade, 2008). According to the definition of EI by Mayer and Salovey [13] it is a set of skills, hypothesized to contribute to the accurate appraisal, the effective regulation and expression of emotions in oneself and in others and the use of feelings to motivate, plan, and achieve in one's life. Goleman explained concept of emotional intelligence by highlighting that rational and emotional types of minds coexist and relate with each other, indicating that emotional intelligence serves as is an inspiration to act for the rational mind, and the rational mind, in turn, refines the emotions and in some cases prevents their expression [8]. According to EI theory, emotions are called to provide with vital information for making sense of inner experiences and navigating a persons social environment [3].Thus, individuals who are receptive to internal and external cues of emotion, engage in information processing about their own and others emotion experiences, and use the information as a guide to their thought and behavior are more likely to exhibit adaptive functioning in both the intrapersonal and interpersonal realms. More recently, Petrides and Furnham suggested that EI could be conceptualized as two separate constructs: Ability EI (AEI) and Trait EI (TEI), segregated by method of operationalisation [15].

There are several theoretical approaches to define the structure of EI, among which the most notable are the ability-based and mixed models.

The ability-based model by Mayer and Salovey [14] consists of the following components of EI:

1) perceiving emotions – the ability to be aware of emotions, identify them and to distinguish and adequately express;

2) using emotions to improve thinking and intellectual activity, the ability to use emotions as an incentive to action / solve certain problems;

3) understanding emotions – understanding the causes of emotional experiences;

4) managing emotions – their ability to control and regulate, the ability to stimulate the expression of positive emotional experiences.

Goleman's [8] mixed model presents the following five components of EI:

1. Self-awareness – the ability to know one's emotions, strengths, weaknesses, drives, values and goals and recognize their impact on others while using gut feelings to guide decisions;

2. Self-regulation – involves controlling or redirecting one's disruptive emotions and impulses and adapting to changing circumstances;

3. Social skill – managing relationships to move people in the desired direction;

4. Empathy – considering other people's feelings especially when making decisions;

5. Motivation – being driven to achieve for the sake of achievement.

There are different views on the possibility of developing emotional intelligence. Mayer and Salovey stated that emotional intelligence is a relatively stable state [13]. Goleman suggests that emotional intelligence can be developed at any age starting from childhood and significantly improved in adulthood [8].

As a final point, EI comprises a set of four emotional skills including accurately perceiving emotions, integrating emotions with cognition, understanding emotional causes and consequences, and managing emotions for personal adjustment [12]. These skills build hierarchically, from the ability to perceive emotions up to managing emotions. Perceiving emotions includes the ability to accurately identify and express emotions, which helps to discriminate between hospitable and hostile situations [5]. The ability to generate and use emotions to enhance thinking includes altering emotion to redirect cognitive processes, obtain new perspectives, and enhance problem-solving or creativity. Emotional understanding includes the ability to understand emotional information, the manner in which they combine, and their causes and consequences [11]. Emotional management includes the ability to be open to feelings and modulate them to facilitate growth. Another important feature of emotional intelligence – is an ability to empathically interact with people, to be capable of defining their emotional state and as a result to build a strong and effective cooperation with people.

The key role of emotional intelligence in ATC can be defined using the following features:

1. The high level of emotional intelligence in ATC is the main attribute in formation of situational psychological readiness as it is expressed in a high emotional competence that is responsible for emotional regulation, inner mobilization and disposition to work;

2. Emotional intelligence helps out to form good situation awareness, as it mobilizes ATC to be in control of their attention, make effective and accurate judgments;

3. Emotional intelligence enables ATC to make a strong and effective team coordination;

4. Emotional intelligence facilitates a high level of self-motivation and goal awareness in ATC.

Conclusions:

1. Considering that the ATC are obliged to make decisions in a challenging high-risk environment, which lead to the chances of emotional stress occurrence ATC specialists are expected to have not only a high level of knowledge and appropriate practical skills, but also a number of individual psychological qualities which could enable him to be mentally and psychologically prepared to work.

2. The formation of situational psychological readiness helps out ATC to mobilize inner recourses to perform job responsibilities effectively, which highly depends on the level of self-regulation.

3. A complete situation awareness serves key component in the perception of the elements in the environment within a volume of time and space, the comparison of their meaning and the projection of their status in the near future and can be formed on the basis of situational psychological readiness.

4. The main determinant of situation awareness and situational psychological readiness is the level of emotional intelligence as a group of mental abilities that support identification, control and understanding of emotions, which are aimed stimulate intellectual activity and emotional self-regulation.

5. The key role in emotional intelligence in ATC lies in the ability to make an appropriate decision based on the understanding their own emotions, which are the result of the differential assessment of the current job situation. That's why emotional intelligence is the key component in emotional self-regulation that determines the formation of situational psychological readiness and situation awareness.

The further researches suggested to be done on the investigation and development of the measurement and understanding of emotional intelligence, which could help to select ATC personnel and also can be used to create the appropriate and effective training for current controllers which could be further implemented into their professional development in order to maintain effective performance.

References

1. Дурай-Новикова К. М. Формирование профессиональной готовности студентов к педагогической деятельности : автореф. дис. на здобуття наук. ступеня докт. псих. наук / К. М. Дурай-Новикова. – М., 1983. – 18 с.

2. Дьяченко М. И. Психологическая готовность / М. И. Дьяченко, Л. А. Кандыбович. – М. : Наука, 1986. – 315 с.

3. Abe, J.A.A. Positive emotions, emotional intelligence, and successful experiential learning / J.A.A. Abe // Personality and Individual Differences 51, no. 7, 2011, p. 817-822.

4. Ammerman, H.L. FAA air traffic control operational concepts. Vol.VII,ARTCC / H.L. Ammerman. Host, Washington, 1987, p. 47–70.

5. Bar-On, R. The emotional intelligence inventory (EQ-I): Technical manual / R. Bar-On. Toronto, Canada: Multi-Health Systems, 1997, 44 p.

6. Costa, G. Occupational stress and stress prevention in air traffic control : working papers / G. Costa. International labor office Geneva, 2009, p.1–43.

7. Endsley, M.R. Theoretical underpinnings of situation awareness: A critical review / M.R. Endsley // Situation awareness analysis and measurement, 2000, p. 3–32.

8. Goleman, D. Working with emotional intelligence / D. Goleman. USA: Random house LCC, 1995, p. 357– 430.

9. Kinney, G.C. The human element in air traffic control: Observations and analyses of the performance of controllers and supervisors in providing ATC separation services / G.C. Kinney, M.J. Spahn, R.A. Amato. MRT-7655. METREK Division, MITRE Corporation, McLean VA, 1997, p. 87–98.

10. Leedom, D.K. Aircrew coordination for army helicopters; Research overview / D.K. Leedom // In R.S. Jensen (Ed.), Proceedings of the Sixth International Symposium on Aviation Psychology, Columbus; The Ohio State University, 1991, p. 284–289.

11. Lyubomirsky, S. The benefits of frequent positive affect: does happiness lead to success? / S. Lyubomirsky, L. King, E. Diener // Psychological bulletin 131, no. 6, 2005, p. 234–246.

12. Mayer J.D. Human abilities: Emotional intelligence / J.D Mayer, R.D. Roberts, S.G. Barsade // Annu. Rev. Psychol. 59, 2008, p. 507–536.

13. Mayer J.D. Emotional intelligence and the construction and regulation of feelings / J.D. Mayer, P. Salovey // Applied and preventive psychology 4, no. 3,1995, p.197–208.

14. Mayer J.D. Emotional intelligence: new ability or eclectic traits? / Mayer J.D., P. Salovey, D.R. Caruso // American Psychologist 63, no. 6, 2008, p. 503–534.

15. Petrides, V.K. Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies / V.K. Petrides, A. Furnham // European Journal of Personality 15, no. 6, 2001, p. 425–448.

16. Smolensky M.V. Human factors in air traffic control / M.V. Smolensky. M.V. USA: Academic press, 1998,477 p.

References

1. Durai-Novikova K. M. Formirovanie professional'noi gotovnosti studentov k pedagogicheskoi deiatel'nosti : avtoref. dis. na zdobuttia nauk. stupenia dokt. psikh. nauk / K. M. Durai-Novikova. – M., 1983. – 18 s.

2. D'iachenko M. I. Psikhologicheskaia gotovnost' / M. I. D'iachenko, L. A. Kandybovich. – M. : Nauka, 1986. – 315 s.

3. Abe, J.A.A. Positive emotions, emotional intelligence, and successful experiential learning. / J.A.A. Abe // Personality and Individual Differences 51, no. 7, 2011, p. 817–822.

4. Ammerman, H. L. FAA air traffic control operational concepts. Vol.VII,ARTCC / H.L. Ammerman. Host, Washington, 1987, p. 47–70.

5. Bar-On, R. The emotional intelligence inventory (EQ-I): Technical manual / R. Bar-On. Toronto, Canada: Multi-Health Systems, 1997, 44 p.

6. Costa, G. Occupational stress and stress prevention in air traffic control : working papers / G. Costa. International labor office Geneva, 2009, p. 1–43.

7. Endsley, M. R. Theoretical underpinnings of situation awareness: A critical review / M.R. Endsley // Situation awareness analysis and measurement, 2000, p. 3–32.

8. Goleman, D. Working with emotional intelligence / D. Goleman. USA: Random house LCC, 1995, p. 357–430.

9. Kinney, G. C. The human element in air traffic control: Observations and analyses of the performance of controllers and supervisors in providing ATC separation services / G.C. Kinney, M.J. Spahn, R.A. Amato. MRT-7655. METREK Division, MITRE Corporation, McLean VA, 1997, p. 87–98.

10. Leedom, D.K. Aircrew coordination for army helicopters; Research overview / D.K. Leedom // In R.S. Jensen (Ed.), Proceedings of the Sixth International Symposium on Aviation Psychology, Columbus; The Ohio State University, 1991, p. 284–289.

11. Lyubomirsky, S. The benefits of frequent positive affect: does happiness lead to success? / S. Lyubomirsky, L. King, E. Diener // Psychological bulletin 131, no. 6, 2005, p. 234–246.

12. Mayer, J.D. Human abilities: Emotional intelligence / J.D Mayer, R.D. Roberts, S.G. Barsade // Annu. Rev. Psychol. 59, 2008, p. 507–536.

13. Mayer, J. D. Emotional intelligence and the construction and regulation of feelings / J.D. Mayer, P. Salovey // Applied and preventive psychology 4, no. 3,1995, p. 197–208.

14. Mayer, J. D. Emotional intelligence: new ability or eclectic traits? / Mayer J.D., P. Salovey, D.R. Caruso // American Psychologist 63, no. 6, 2008, p. 503–534.

15. Petrides, V. K. Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies / V.K. Petrides, A. Furnham // European Journal of Personality 15, no. 6, 2001, p. 425–448.

16. Smolensky, M. V. Human factors in air traffic control / M.V. Smolensky. M.V. USA: Academic press, 1998, 477 p.

Zaporozhets, T.O. Emotional intelligence, situation awareness and situational psychological readiness in air traffic controllers. The following paper presents the role of emotional intelligence in the formation of situation awareness and situational psychological readiness in air traffic control. The specifics of professional job of ATC was presented based on the conclusion that air transportation is a complex system of interaction of air traffic, airspace and air traffic controller's activities, where the role of ATC was regarded as one of the most important. The complexity of ATC job is presented by highlighting the main activities such as situation monitoring, resolving aircraft conflicts, managing air traffic sequences, routing or planning flights, assessing weather impact, managing sector/position resources, which also involve 46 sub-activities and 348 distinct tasks, on the basis of which is assumed that ATC requires not only the appropriate skills, professional knowledge and experience from its specialists, but also the specific personality variables and individual factors, which enable them to form the psychological readiness to perform efficiently in a high risk and safety sensitive environment.

The situational psychological readiness was defined as a dynamic state of personality, characterized by internal disposition on certain activities and behaviors through the mobilization of inner resources for its coherent, purposeful implementation and its role in ATC was named using the following features: emotional disposition to work; identifying and understanding the action plan in accordance with the goals and objectives of the turn-based programming; the ability to control your own emotional state; ability to understand and separate the elements of ATC situation; keep the track of its current position and make predictions about future development; mobilization of inner resources to perform effectively. The correlation between situation awareness and situational psychological readiness was showed.

The key role of emotional intelligence in ATC was presented by following characteristics: the high level of emotional intelligence in ATC is the main attribute in formation of situational psychological readiness as it is expressed in a high emotional competence that is responsible for emotional regulation, inner mobilization and disposition to work; EI helps out to form good SA, as it mobilizes ATC to be in control of their attention, make effective and accurate judgments; EI enables ATC to make a strong and effective team coordination; EI facilitates a high level of self-motivation and goal awareness in ATC.

Keywords: emotional intelligence, psychological readiness, situational psychological readiness, situation awareness, air traffic control, air traffic controllers (ATC).

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УДК 159.922:33/:336.7-051

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ПОРІВНЯЛЬНИЙ АНАЛІЗ ТА ОСОБЛИВОСТІ ПРОФЕСІОГРАФІЇ В СИСТЕМІ «ЛЮДИНА-ТЕХНІКА» ТА «ЛЮДИНА-ЛЮДИНА»

Кушніренко К.О. Порівняльний аналіз та особливості професіографії в системі «людина-техніка» та «людина-людина». Стаття присвячена вивченню особливостей професіографії діяльності фахівців різних систем – системи «людина-людина» та «людина-техніка». Представлена загальна схема побудови професіографії діяльності фахівців різних сфер, яка має 3 блоки: загальну характеристику професії, основні виробничі операції і умови праці, та психограму. Описана психограма представників кожної з систем – практикуючого лікаря як представника системи «людина-людина» та авіаційного диспетчера, як представника системи «людина-техніка». Водночас представлений порівняльний аналіз цих двох систем на основі виокремлених 10 пунктів.

Ключові слова: професіографія, система, банківська сфера, аналіз, порівняння, людина, техніка, психологічні особливості, діяльність, схема.

Кушниренко К.О. Сравнительный анализ и особенности профессиографии в системе «человек-техника» и «человек-человек». Статья посвящена изучению особенностей профессиографии деятельности специалистов разных систем – системы «человек-человек» и «человек-техника». Представлена общая схема построения профессиографии деятельности специалистов разных сфер, которая имеет 3 блока: общую характеристику профессии, основные производственные операции и условия труда, и психограмму. Описана психограмма представителей каждой из систем – практикующего врача как представителя системы «человек-человек» и авиационного диспетчера, как представителя системы «человек-техника». В то же время представлен сравнительный анализ этих двух систем на основе выделенных 10 пунктов.

Ключевые слова: профессиография, система, банковская сфера, анализ, сравнение, человек, техника, психологические особенности, деятельность, схема.

Постановка проблеми. Вивчаючи особливості професійної діяльності, використовуючи різні підходи та принципу аналізу, ми працюємо над створенням професіграфії. Професіографія в кожному окремому випадку має свої особливості, звертає більше уваги на той чи інший аспект, при цьому деякі складові можуть зовсім виключатись з професіограми. Розглядаючи різноманітні професії, які є представники різноманітних систем, професіографія видозмінюється, але існує загальна схема професіографії. [4]

Аналіз останніх досліджень і публікацій. Відомо, що нині на високому рівні розроблено професіографії в системі «людина-техніка» льотчиків (Б. Ломов, 1987), моряків (М.С. Корольчук, 1997), рятувальників (С.М. Миронець, О.В. Тімченко, 1998–2013), операторів (В.І. Осьодло, 2014). Водночас теоретичний аналіз проблеми професіографії в системі «людина-людина» у цілому і зокрема працівників банківської сфери потребує покращення. Умови і психологічні особливості професіографії діяльності спеціалістів банківської сфери зумовлюють їх ефективне функціонування завдяки «людським факторам» [3].

Мета статті: здійснити порівняльний аналіз систем «людина-техніка» та «людина-людина», і виявити особливості професіографії в цих системах.

Виклад основного матеріалу і результатів дослідження. Схема професіографії, за В.О. Бодровим:

I. Загальна характеристика професії (описова частина професіограми).

1. Визначення професії та короткі відомості про її призначення; соціально-економічне значення, перспективи її розвитку; поширеність, зв'язку з іншими професіями; типові установи, підприємства; рівень технічної складності, автоматизації; основні виробничі операції.

2. Вимоги до загальної і спеціальної підготовки, роль індивідуальних якостей, склад робочих груп; перспективи просування по службі, стимулювання професійної діяльності, зарплата.

3. Режим праці та відпочинку, розподіл робочого часу.

II. Основні виробничі операції і умови праці.

1. Найменування і основний зміст найбільш важливих операцій (перерахування та аналіз).

2. Основні завдання, які вирішуються працівником.