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Analysis of aviation it specialists' competency in airline industry safety

The article is devoted to the analysis of modern requirements for the aviation IT specialists with regard to their professional knowledge, skills and competency related to the person's psychological features. The author considers the professionally significant qualities of aviation IT professionals as the complex of personal properties, individual psychophysiological and socially important competencies enhancing both the successful vocational activity, the effective solution of professional problems, personal growth and proficiency.

The airline industry is highly diversified, extremely safety-sensitive, and technologically driven. Furthermore, it is initially very high-tech and develops primarily in accordance with the world standards and requirements. The structural complexity of aviation business processes is greatly amplified by high responsibility. With the ever-increasing flow of passengers, the slightest failure in transmitting the information can lead to disastrous consequences. Therefore, the industry has traditionally made very high demands on the Information Technology (IT) infrastructure - both carriers and airports, suppliers of vehicles, repair services, etc. Above all, it is included in the global economic processes and is inevitably being involved in global trends (including informatization), caused by globalization, tougher competition and, in fact, rapid market dynamics.

Work in aviation requires a high level of responsibility and proficiency. The concept of professionalism is quite essential for understanding the content of specialist's professional development. The researchers consider professionalism as the integral quality of a labour subject characterizing the productive performing of professional duties due to self-creative activity and high level of professional self-actualization [6, p. 24].

In the study, the "professionalism" of IT specialists can be identified as the integral personality characteristic related to a person who has perfectly mastered the norms of professional activity and communication for their implementation at a high level, achieving professional skills in the IT field; has adhered to professional ethics, following the common principles of professional values. Moreover, the future professional while developing by means of the profession and taking into account new social demands seeks to make his creative contribution and causes the public interest in the results of his professional activity, increasing the prestige of his profession in the society [2, p. 55].

It should be mentioned that allowing for the high pace of IT development that has been observed in recent years, the system of training representatives of information professions should be ahead of the growing internal organization requirements and expectations. All this determines the high relevance of issues related to the train-

ing of IT professionals including the reforming of vocational education and coordination of IT specialties existing in Ukraine with internationally recognized competency standards [1].

The dynamics of professional life is largely determined by professionally important qualities and skills, which are necessary and universal for most types of professional activity. First of all, we can differentiate such qualities as responsibility, self-control, self-assessment of professional qualifications, viewed as a significant component of professional self-awareness. In particular, the researcher O. Kokun highlights the following integral qualities of the personality that are supposed to be essential for achieving success at work: composure, activity, strong character, diligence, sociability, humanity and intellectual abilities (observation skills, logical mind, anticipation, intelligence, correct self-esteem, diplomacy and sense of humour) [3].

For the first time, the scientific community considered the need of allocating the most significant professional knowledge, skills and qualities of specialists in the IT field, when it was assigned a task of the systematic developing the specific criteria for providing the effectiveness and quality of vocational training. Furthermore, a complex of the most required professional skills and personal qualities of IT specialists was established due to the expert survey and applying the specific methods of mathematical statistics. In addition, the analysis of practical activities of modern aviation industry IT specialists allows us to identify a peculiar "standard of IT staff competence," represented as a complex of knowledge and skills to be possessed by an IT specialist for successful vocational activities: 1) highly specialized competencies, allowing creative use of computer programs, various types of "software packages", utilities and gadgets while solving emerging problems; 2) knowledge of diverse programming languages and the ability to consciously use them during joint organizational activity when solving the tasks; 3) the ability to enter a special mode of information activity, which involves focusing consciousness on symbolic information and transforming the received information into organizationally significant information/knowledge; 4) the ability to integrate both the information generated in the process of computer networks functioning and the information circulating through other channels of internal organizational information into a single organizational field [2, p.55].

In particular, assuming the research experience gained in foreign and domestic science, we should recognize that improving the formation of professionals in the IT industry can be achieved only through the direct study and analysis of their practical activities in the modern organizational environment for developing clearly defined evaluative categories. It might be supposed, therefore, that despite the importance of the qualification factor of an IT specialist, his intra-group status and internal organizational perception are largely determined by such important individual parameters as different temperaments and personality traits. And for that very reason in the studies of some researchers, there are submitted two groups of professionally important qualities such as personal and communicative ones.

In our opinion, the set of the most expected personal qualities inherent to modern IT specialists should include emotional stability, punctuality, accuracy, responsibility, creativity, ambitiousness, high performance, marginal attention, let alone logical thinking, mental flexibility, professional and intellectual mobility [2, p. 56].

In the view of L. Tereminko, analysis of requirements for the professional and personal qualities of IT professionals and the rapid IT development show that such personal quality as professional mobility is also compulsory for successful professional activity. According to experts in the IT field, the ability to quickly adapt to the new conditions of vocational activity, refocus on implementing various work responsibilities, respond quickly to problem situations, as well as ability to cooperate with colleagues and clients, readiness for constant updating of knowledge, the intent to self-education and self-improvement, the study and use of new methods and technologies are thought to be the important personal qualities for proper performance of professional duties [7, p. 221].

Notably, according to G. Mikhnenko, the intellectual mobility of the IT-professionals combines intellectual abilities and personal qualities that ensure the readiness of a specialist to quickly find, analyze and make productive use of growing data flows, to produce new ideas and adopt innovations, to choose effective ways of carrying out reproductive and creative tasks as well as provides for changing the types and forms of intellectual activity without reducing the efficiency. Additionally, the intellectual mobility determines the success in learning, in mastering a new kind of activity, and encourages the sharing of ideas and best practices both in the professional area and in everyday life [4]. In our opinion, a very important factor in assessing a professional in the IT industry is the factor of enthusiasm for his work, since without a steady interest in everyday professional activity it is impossible to rely on internal positive motivation, which, according to the researcher M. Smulson, is closely related to a sense of joy and absolute freedom of creativity that IT professionals can feel during their work [5]. The above-mentioned facts reveal that due to effective communication IT professionals are able to avoid most of the emerging problems by timely sharing the responsibility for the end result and can form more adequate understanding of their activity's peculiarities.

Consequently, the IT specialists' training program must necessarily include the development of their communicative skills and competencies. Since aviation IT professionals have a great responsibility, they ought to be concerned in providing a fully understandable business communication process with their colleagues, managers and suppliers. Owing to integrating relevant technical jargon, documentation and technical innovations in foreign language, there is a clear necessity and requirement for effective English communication skills for IT professionals in the current globalised aviation environment.

Indeed, communication skills are considered to be a valuable career enhancer. Inadequate and ineffective communication skills reflect badly on the individual and professional development. An insufficient level of communication skills instruction in engineering education generally only serves to undermine the whole profile of the IT professional [8].

In the age of globalization, international projects are increasing, and cross-cultural communication and collaboration are rising; especially in the modern international practice of IT industry. In order to achieve high professional skills, IT specialists may regularly take an active part in a series of various joint projects within the framework of educational and production activity at specialized departments, and additionally can be involved in educational and promotional activities conducted by

their potential employers. Furthermore, as noted by B. Lawson, an ability to show interest in understanding the desires and needs of each potential user has been increasingly viewed as the professionally significant quality for modern IT specialists. For instance, a set of testing tools, actively expanded recently, allows the managers of organizations to accurately choose such specialists who possess not only professional knowledge and skills and are motivated to perform their duties but are also capable of both productive teamwork and providing harmonious relations with their colleagues.

Summarizing the above-mentioned theoretical and practical studies, we can state that, with all existing individual and personality differences, future IT professionals should have a set of compulsory abilities, based on a combination of certain psychological characteristics, namely [2, p. 56]:

1) the ability to carefully think over their professional actions, their expediency and safety, taking into consideration the high risk of irreversible consequences of professional mistakes, and also assume responsibility for their results;

2) the ability to continuous and impressive intellectual activity, in which various expressions of psycho-emotional and physiological discomfort are possible due to monotony, low and repetitive physical activity, which is based on combining a high level of intellectual abilities, emotional and volitional self-control and a balanced type of temperament;

3) the ability to communicate their thoughts in a language understandable to ordinary users-colleagues (who are not IT professionals) when clarifying rules for dealing with computer/software equipment and operating systems, owing to a combination of a superior social intelligence and basic communicative skills;

4) the ability to respond emotionally to possible mistakes of colleagues and direct managers arising in the course of their work with office computer programs, networks and in an accessible, correct way explain everything they need to know in order to avoid such mistakes in the future, which is based on a combination of a high level of emotional self-control and relevant communication skills.

Conclusion. Thus, it can be argued that professionally important qualities of aviation IT professionals are a complex of personality traits, individual psychophysiological and socially significant qualities that facilitate successful performance of the professional activity, provide an effective solution of professional problems, as well as personal and professional growth, self-improvement and career development. Moreover, the level of forming professionally important qualities determines the process of human development as a professional. Taking into consideration modern requirements for the professional qualities, knowledge and skills of aviation IT specialists, it is worthwhile also emphasizing the main competence, namely, the ability to study throughout the period of professional activity.

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