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CREATIVITY AND ITS SIGNIFICANCE IN REALIZATION OF THE CREATIVE
PROCESS

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Abstract. In the paper the author analyzes the basic concepts of creativity in order to identify the main characteristics of a creative personality.

Краткий экскурс в историю появления и становления понятия "креативность" в зарубежной и украинской психолого-педагогической науке позволяет констатировать тот факт, что проблема креативности получает развитие уже в середине 60-х годов XX столетия. A brief dive into the history of the emergence and development of the concept of "creativity" in foreign and Ukrainian psycho-pedagogical science allows us to state that the problem of creativity has been developing already in the mid-1960s of XX-th century.

The author focuses attention on the differences between such characteristics of personality as creativity and intelligence. The most famous concepts of creativity of foreign and domestic researchers (J. Guilford, M. Vollach and N. Kogan, R. Sternberg, A. Maslow, V. Druzhinin and N. Khazratova) are analyzed. It is concluded that, despite the variety of definitions of creativity (such as the ability to generate original ideas, to abandon stereotyped ways of thinking, the ability to form hypotheses, to generate new combinations, etc.), the final characteristic of creativity is reduced to the ability to create something new, original.

The main features of the creative personality are highlighted on the basis of analysis of models of parameters and characteristics of creativity (D. Perkins, A. Taylor and others).

Key words: creativity, intelligence, creative personality.

КРЕАТИВНОСТЬ И ЕЁ ЗНАЧЕНИЕ В РЕАЛИЗАЦИИ ТВОРЧЕСКОГО ПРОЦЕССА

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Аннотация. В публикации автор анализирует основные концепции креативности с целью выделения основных характеристик творческой личности.

Краткий экскурс в историю появления и становления понятия "креативность" в зарубежной и украинской психолого-педагогической науке позволяет констатировать тот факт, что проблема креативности получает развитие уже в середине 60-х годов XX столетия.

Автором акцентировано на различиях между такими характеристиками личности как креативность и интеллект. Проанализированы наиболее известные концепции креативности зарубежных и отечественных исследователей (Дж. Гилфорда, М. Воллаха и Н. Когана, Р. Стернберга, А. Маслоу, В. Дружинина и Н. Хазратовой). Сделан вывод, что, несмотря на разнообразие определений креативности (как способности порождать оригинальные идеи; отказываться от стереотипных способов мышления; способности к постановке гипотез; к порождению новых комбинаций и т.д.) ее суммарная характеристика заключается в том, что креативность – это способность создавать что-то новое, оригинальное.

На основе ознакомления с моделями параметров и характеристик креативности (Д. Перкинс, А. Тейлор и другие) выделены основные признаки творческой личности.

Ключевые слова: креативность, интеллект, творческая личность.

Topicality of the research. Creating the conditions for the formation of an educated, creative personality of the citizen, realization and self-realization of his/her natural creative inclinations is determined by one of the strategic objectives of the entire education system, because state power is determined primarily by the number of its highly qualified specialists, creative attitude to their work can contribute to the successful development of science, technology and art. Therefore, one of the priorities of the reformation of the system of higher education in Ukraine is the humanization of educational activities, that presupposes the

direction of the educational process to formation of future creative personality, creating conditions for disclosure of his/her talents, spiritual, emotional and mental abilities.

In modern psychology and pedagogy the problem of creative abilities occupies an important place as a major problem of the development of personality (L.S. Vygotsky, A.N. Leontiev, Y.A. Ponomarev, S. Rubinstein, Dunchev V.N., V.N. Druzhinin, V.N. Kozlenko, L.B. Ermolaeva-Tomina , A. Morozov, D. Epiphany, R. Arnheim, J. Guilford, E.P. Torrance, D. Taylor, J. Renzulli, S. tinkers, J. Feldhyuzen, R. Sternberg, H. Eysenck . Maslow, Rogers et al.). Creativity regarded as a creative product (R. Arnheim, D. Taylor, R. Sternberg), as a separate capability (J. Guilford, H. Eysenck, DB Epiphany, EP Torrance); as a personal trait (A . Maslow, V.N. Druzhinin); as a creative process (D. Feldman).

Statement of the research issue. Until now, many Ukrainian and Russian scholars do not recognize the existence of creativity as an autonomous universal ability. They consider creativity to be always directly associated with a particular kind of activity. That's why, in their opinion, we can't talk about creativity in general: there is artistic creativity, scientific creativity, technical creativity and so on. However, most foreign scholars are inclined to believe that the nature of creativity is unified; therefore creative capability is universal as well. Learning to work in sphere of art, technology or other activities, a person can easily transfer this experience to any other field. That's why creativity is considered to be relatively autonomous and self-sufficient. As S. Stepanov noted [Степанов, 2005, с. 328-331], creative components of intellectual processes attracted the attention of many scientists throughout the development of psychological science (Alfred Binet, Frederick Bartlett, Max Wertheimer, Wolfgang Kohler, Carl Dunker). However, most of these works do not actually take into account individual differences in creative abilities, and although the authors recognize that different people have these abilities developed differently. Interest in individual differences of creative abilities raised thanks to obvious progress in testometric studies of intelligence, but rather with the less obvious lapses in this field.

According to S. Stepanov [Степанов, 2005], the creative components of intellectual processes attracted the attention of many scholars throughout the development of psychological science (Alfred Binet, Frederick Bartlett, Max Wertheimer, Wolfgang

Köhler, Karl Dunker). However, in most of these works, in fact, individual differences in creative abilities were not taken into account, although the authors acknowledged that in different people these abilities were not developed in the same way. The interest in individual differences in creative abilities was reflected in the apparent achievements in the field of testometric intelligence research, but rather from the less obvious omissions in this area.

In the early 60-ies of XX century massive experience of testing the intelligence level has already been gained. So, in its turn it set up new questions to the researchers. In particular, it was found that professional and personal life success is not directly related to the level of intelligence, which was calculated using IQ tests. Experience testified, that people with not relatively high IQ level are capable of extraordinary achievement, and many others, whose IQ is primarily much higher, often lagging behind. It has been suggested, that the crucial role is played by some other qualities of the mind that are not covered by traditional testing.

Since comparing success rate of solution of problem situations with traditional intelligence tests in most cases demonstrated no association between them, some psychologists have concluded that the effectiveness of problem-solving does not depend on the knowledge and skills measured by tests of intelligence, but of special ability "to use information given in the tasks in different ways and at a rapid pace." Such ability is called creativity [Степанов, 2005].

Research results. The term "creativity" in pedagogy and psychology gained popularity in the west in the 60-ies of XX century after the publication of the works of J. Guilford, through which modern psychology of creative giftedness was born (psychology of creativity). Under the present conditions the term "creativity" is widely used in studies of domestic and foreign authors (V. Druzhinin, L. Ermolaeva-Tomin, M. kid, M. Leshchenko O. Bow, Maslow, A. Matyushkin, V. Molyako, V. Petukhov, K. Toshyna et al.). [Павлюк, 2007] However, as R. Pawluk noted, referred concept can't be clearly and unambiguously defined, because single approach or concept creativity was not offered. In foreign psychology there are about hundreds of definitions of mentioned concept that reflects

understanding of researchers presented within multiple conceptions of creativity. Let's mention a few of them.

J. Guilford's creativity concept. J. Guilford offered a cubical model of structure of intelligence, developed by himself, where he finds and distinguishes differences between convergent and divergent thinking, as the foundation of the concept of creativity as a universal cognitive creative ability. This model contains 120 different intellectual processes that are reduced to 15 factors: five operations, four types of content, six types of products of mental activity. Operations: cognition, memory, divergent productive thinking, convergent thinking, assessment. J. Guilford correlated divergent thinking with creativity. [Guilford, 1958] As the D.B. Bogoyavlenska mentioned, divergency is the epicenter of the J. Guilford's theory, so, in a short period of time many psychologists began to understand creativity and divergent thinking as synonyms [Богоявленская, 2006, с. 85].

J. Guilford as well as his follower E.P. Torrance, considered to be chief ideologues of "psychometric" approach in the study of creativity. They have developed tests for creativity assessment, and the creativity research procedure similar to the procedure of testing intelligence.

Concept by Wollach M. and N. Kogan. Wally M. and N. Kogan believe that to obtain reliable data on the creativity it's necessary to radically change the procedure of the research. They criticize strict limitation of time, creating an atmosphere of competition and the presence of a single criterion of "correct answers", noting that under such circumstances, all creativity tests basically appear to be IQ tests.

Numerous studies have shown that the presence of test achievement motivation, competition or social approval motivation making it much more difficult to displays creativity by blocking self-actualization. Taking that into account, Wall M. and N. Kogan conducted testing of children and adolescents in a form of a game, while competition among participants was reduced to a minimum, and the experimenter accepted any answer from tested subjects. Very often poor social environment adaptability capabilities associated with a high level of creativity. Wally M. and N. Kogan, investigating the connection between creativity and intelligence, tried to check it out. They distinguished four groups of children that used differed ways to adapt to external conditions as well as solved their life problems

in different ways. The most adaptive, as the researchers noted, are children with high level of intelligence and creativity. Children with high intelligence but low creativity form the next group. The least socially adaptive children possessed high creativity, but a low level of intelligence. Demonstrating good adaptive capabilities (at least outwardly), children that possessed low level of intelligence and creativity.

Very often a high level of creativity is attributed to the weak adaptability of a person to a social environment. M. Vollah and N. Kogan, studying the connection between creativity and intelligence, tried to test this statement. They identified four groups of children with different adaptive abilities to external conditions and life problems encounters. The most adaptive appeared to be the children with a high level of intelligence and creativity. Next group consisted of children with a high level of intelligence, but with low creativity. The least socially adaptive proved to be children with high creativity, but with a low level of intelligence.

"The Theory of Investment" by R. Sternberg. The theory proposed by Robert Sternberg and D. Lavertom is one of the most recent occurrence. The authors give their definition of a creative person, as such, able to deal with unknown or unpopular ideas, despite the resistance of the medium, misunderstanding and rejection, insisting on certain ideas and "sell them at a high price." The most important thing, according to the author's point of view, is to correctly assess the development potential of the primary ideas and potential demand. According to R. Sternberg creativity involves the ability to go for a reasonable risk, willingness to overcome obstacles, internal motivation, the presence of tolerance for ambiguity, willingness to resist the environment. Mandatory factor of display of creativity is the presence of a creative environment.

Theory of a creative personality by A. Maslow. According to Maslow, the pace of development of the historical process in recent years has accelerated and humanity is experiencing a particular historical moment, quite unlike the previous ones. The researcher indicates, that a need for a new type of man was formed in the society - the creative personality, whatever changes are not frightened, and inspired, which would be capable of improvisation, confident, courageous, spiritually strong, adaptive to unexpected and unfamiliar situation. Thus, the problem of creativity, according to Maslow - is primarily a

problem of the creative personality (not products of creative activity, creative behavior, etc.). The author is deeply convinced that creativity can manifest itself in all that does a person: his/her perceptions, values and behavior. That is why it can't affect the contrastive, cognitive and emotional sphere of man.

Creativity, according to the scientist, is a stage of artistic inspiration, the process of detailing the artistic product and giving it a particular subject form. The author believes that the concept of creativity and the concept of healthy, self-actualizing personality are close to each other. Creativity training, or, more precisely, learning through creativity, can be extremely useful not only to prepare people to master the creative professions or to the production of art, but to develop a good, kind and attractive personality. [Поклад, 2005]

Approach of B. Druzhinin and N. Hazratovoyi. Authors are being united by the idea that a criterion of creativity can be awareness, that is perceived by the environment. Semantic criterion, in contrast to the frequency, allows to distinguish between productive (creative) and unproductive (deviant) manifestations of human activity. V. Druzhinin emphasizes that "semantic criterion allows to split behaviors of the tested into reproducing (stereotypical), original (creative) and unconscious. The original answer man/woman gives, highlighting some of the properties of objects and ignoring others. Highlighting unobvious, hidden signs is changing semantic hierarchy as well as its importance, and the subject appears in a new light, which generates the surprise effect and originality. However, original are those associations that are not too far from obvious signs. Thus, the original answers occupy an intermediate position between reproducing (stereotypical) and unconscious answers. So, original answers is a sign of creativity. However, according to V. Druzhinin, modern creativity tests can detect most creative person, but can't distinguish uncreative. He sees the reason in manifestation of creativity as a spontaneous and independent of external and internal regulation.

Despite all the variety of definitions of creativity (like the ability to generate original ideas; abandon stereotypical ways of thinking, the ability to statement of hypotheses, to the generation of new combinations, etc.) of its total characteristic is that creativity is the ability to create something new, original [Яковлева, 2001].

Assessing creativity in modern psychologists after J. Guilford four criteria are usually taken into consideration. Productivity, or speed is the ability to maximize the production of a large number of ideas. This indicator is not specific for creativity, but the more ideas means the more opportunities to select the most original from them. Flexibility is the ability to easily switch from one class of phenomena to another class of phenomena, often very distant in meaning from one another. The opposite quality is called inertia of thinking. Originality is one of the key indicators of creativity. This is the ability to impose new, unexpected ideas that differ from the widely known conventional, banal ones. Another indicator of creativity is termed "elaborated." Creators (producers) can be roughly divided into two groups: representatives of the first one are better able to produce original ideas, others can specifically, creatively develop existing ones. These variants of creativity are not ranked by experts, it is believed that it's just different types of creative personality [Савенков, 1998, с. 26].

D. Perkins proposed a model of parameters and characteristics of creativity, which was called a model of six-level snowflakes (*Six-trait Snowflake Model of Creativity*) [Латыпов, 2005, с. 119-120]. In accordance to his point of view, the main elements of creativity are:

- presence of strong internal motivation, duty to own principles: the creator is inclined to complication, reorganization, asymmetry; he or she is pleased to challenge the chaos and breaks into the solution and synthesis;

- the ability to go beyond the boundaries of solving problems: for example, scientists consider the "good" only questions that give interesting, unexpected answers that allow you to look at the problem from the other side, to get a creative decision or discover;

- mental mobility, which gives creative individuals the opportunity to find new perspectives in solving traditional or non-standard problems: such individuals tend to think and reason "in spite of"; by reasoning metaphorically and by analogy, they eventually come to the assumptions that leads to a solution;

- readiness to take risks and make mistakes: creative individuals are able to learn from their own mistakes; working on the "brink of opportunity", where there is a high risk of error, creative-gifted people are more likely to produce new creative results;

- assimilation of a different point of view: creative individuals are inclined not only to critically examine and analyze their own ideas or propositions, but also to adequately perceive someone else's opinion or criticism, they are objective, which means going beyond their own "I", searching for and taking into account the advice of competent colleagues, testing their ideas;

- internal motivation: the creators are immersed in the process of activity on their own, not for the sake of external material incentives, their work catalyzes the pleasure, satisfaction and benefit from work [Латыпов, 2005, с. 119-120].

A. Taylor, in the book "Nature of the Creative Process", distinguishes five levels of creativity, noting, that the first three levels can be achieved by anyone with the appropriate motivation and perseverance. The last two levels are far beyond abilities of an average individual. They are common for those, who can survive the inspiration or especially gifted by nature - geniuses [Латыпов, 2005, с. 119-120].

1. The level of primitive and / or intuitive expression. Creativity at this level represents the direct and simplest expressions of feelings, emotions and thoughts, usually common for children and adolescents not engaged in specific art creation activities. This is a naive and primitive art (creativity), but filled with feelings and experiences. The process and results of such a "naive" creative process are intended primarily for personal satisfaction.

2. Academic and scientific-technical level. People, as they are at this level of creativity, have extensive knowledge in various fields, have learned techniques and techniques for creating new knowledge in different forms, have enough experience and ability to implement their ideas, using a wide range of methods and techniques. In this case, the perfect possession of your knowledge, craft, and instrument combines with creative energy.

3. Inventive level. For the person-creator there is an opportunity to experiment within the limits of their knowledge or activity (craft), to exploit various ways of using known instruments, objects, approaches. In this case, the inventors use standard techniques, well-known facts, sustainable skills only as a resistance, the starting point for the development of new ideas. This level is characterized by the negation of common rules, going beyond the limits of academic traditions.

4. Level of innovation. In this case, artists, writers, musicians, inventors and thinkers are even more original. They destroy all boundaries and offer methods, ideas, knowledge that qualitatively differ from the standard. The representation of the previous level is preserved only at the substructure level, the subconscious mind that manages these creative efforts.

5. The level of genius. Characteristic for individuals, the ideas and discoveries of which in art and science can not be interpreted or presented as a combination of ideas that arose at previous levels of creativity. The genius is at the level of intellectual and creative development, which can not be explained and achieved through conscious efforts. It is unique in its nature and nature.

Conclusions. In general, creative individuals are characterized by such features:

- able to detect many amazing properties in different subjects, constantly asking question, with a wide scope of interests in different areas often collect a collection of unusual things;

- easily generate a large number of ideas, options to solve problems, find solutions to unusual, unconventional, often even unique techniques and methods;

- can be unrestrained in expression of their views; radical, stubborn, very persistent, especially when defending their views;

- prone to risky actions, even for adventure, love to get new unexpected and previously unknown impression;

- interested in various intellectual games, easily immersed in fantasy, dreams, thoughts, immersed in their imaginations, say: "I wonder what would happen if ..." or "What happens if we change ..."; manipulate ideas it is easy to modify and adapt to other conditions, modifying their original or thoughts of others;

- show live, sharp humor, see funny in those subjects and situations that others do not seem ridiculous: their humor may even seem too eccentric;

- are inclined to non-standard behavior, more willing to irrational behavior; do not hesitate to demonstrate all the contradictions of their nature;

- extremely emotional and sensual, inclined to conduct independent aesthetic experiments (in painting, literature, music);

- admit confusion, chaos in their environment or situations are not interested in the details, which are not considered essential; manifest themselves as nonconformists; are selfish, individualists, can't be attributed to the "gray mass"; without hesitation if necessary, opposing the majority;

- any categorical statements are not recognized without their own checking; subjected to all generally accepted critical view, however, usually constructive, courage of mind allows them to follow their intuition. [Латыпов, 2005, с. 119-120]

In his time, J. Guilford, in his introductory speech to the presidency of the Association of American Psychologists, put forward two issues of creativity to be studied: "How can we open up creative promises to our children and young people?" And "How can we promote the development of creative personalities?" Researchers have demonstrated a direct relationship of creativity on the conditions of socialization, up to the level of education in which different people are educated. In other words, is a conservative school that forms performers - creative types can't survive in such an environment. And there are schools of creativity that, literally speaking, teach to think creatively. Sukhomlinsky emphasized that only a creative teacher is able to ignite thirst for knowledge in students, so every teacher is to develop creativity, which is the main indicator of professional competence.

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