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PSYCHOLOGICAL AND PEDAGOGICAL OPPORTUNITIES FOR DEVELOPING CREATIVITY DURING THE STUDENT PERIOD

B.Kh. Khushbakov - Head of the Department of "Pedagogical Education and Psychology" at Renaissance University of Education, Doctor of Philosophy (PhD) in Pedagogical Sciences

Abstract. The article presents views on the psychological and pedagogical opportunities, conditions, and factors for developing creativity during the student period. In particular, the theoretical analyses of foreign scientists on the manifestation of creativity in the student's personality are described. At the same time, research has been conducted and analyzed to study the formation of creativity during the student period.

Keywords: student personality, creativity, creativity, creative thinking, striving for knowledge, originality, imagination, intuition, emotional empathy, sense of humor, creative attitude toward the profession.

ПСИХОЛОГО-ПЕДАГОГИЧЕСКИЕ ВОЗМОЖНОСТИ РАЗВИТИЯ КРЕАТИВНОСТИ В СТУДЕНТСКИЙ ПЕРИОД

Б.Х.Хушбоков - заведующий кафедрой "Педагогическое образование и психология" Университета образования Ренессанс, доктор философии (PhD) по педагогическим наукам

Аннотация. В статье приводятся мнения о психолого-педагогических возможностях, условиях и факторах развития креативности в студенческий период. В частности, изложены теоретические анализы зарубежных ученых о проявлении креативности в личности студента. Вместе с тем, в целях изучения формирования креативности в студенческий период были проведены исследовательские работы и представлены их анализы.

Ключевые слова: личность студента, креативность, творчество, творческое мышление, стремление к познанию, оригинальность, воображение, интуиция, эмоциональная эмпатия, чувство юмора, творческое отношение к профессии.

Today, there is a tendency to simplify human work as much as possible in various spheres of life. The adaptation of humanity to simplification creates a tendency toward a lack of interest in seeking new, non-standard solutions, especially in the learning of adolescents and young men; this process continues in approaches to learning new things among older youth. Entering a university is undoubtedly a new stage in the lives of young men and women, and accordingly, it can become a great start to changing the approach to education.

One of the most important elements of human culture is creativity, the main component of which is the individual's imagination. In modern society, imagination, which underlies creative thinking, is regarded as a personal capacity for creativity.

Individual issues regarding the definition of creative abilities and creativity, as well as their development during professional training, have been studied by educators and psychologists such as O.S. Anisimov, T.I. Artemyeva, L.S. Bygotsky, B.A. Krutetskiy, A.N. Luk, B.N. Myasishev, S.L. Rubinstein, B.N. Drukhinin, A.B. Petrovsky, Ya.A. Ponomarev, B.M. Teplov, Dkh. Gilford, E. Torrens, and others.

Research on the problem of developing creativity has become quite widespread. It is believed that creative abilities manifest only in artistic creativity: painting, poetry, and music. However, the phrase

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"creativity" is a multidimensional scientific concept that requires deep study and constant reinterpretation in the rapidly changing socio-cultural conditions of our time.

The concept of "creativity" essentially coincides with the concept of "creativity." The concept of creativity (from the Latin Creatio – creation) is a synonym for the concept of creative abilities.

Developing creative abilities is one of the most important tasks of education, as this process touches upon all stages of human development, develops independence in decision-making, and teaches self-expression and self-confidence.

When discussing the development of students' creative abilities during professional training, we also touch upon an important and significant part of the learning process—the problem of selecting methods.

Teaching methods are understood as various ways of interaction between the teacher and the student, during which the knowledge, skills, and abilities of the teacher are transmitted and assimilated by the students, as provided for by the program being studied.

In pedagogy, methods are divided into four main groups: visual, verbal, practical, and game. To develop students' creativity, it is possible to use all the listed methods, as theoretical knowledge helps to immerse oneself more fully in the creative problem being solved or in the execution of an educational project.

In the context of philosophical views on this problem, creativity is positioned as a fundamental and indispensable condition for the existence and development of matter, its transformation, and the creation of new types and forms.

In the process of forming new types of matter, new types of creativity are also formed—this is how philosophical science explains the generalization of "creativity."

The very nature of such a phenomenon as creativity implies considering the term in a wide range of meanings. Creativity is a property of the psyche aimed at the process of generating a qualitatively new object.

This is an internal movement arising from the ability to generate original ideas, apply, and combine unusual actions.

In the Psychological Dictionary, creativity is explained as "activity resulting in the creation of new material and spiritual values" [4, p. 232].

Within the framework of pedagogical research, creativity is defined as the highest form of human independent activity, which carries absolute or relative novelty [3].

Thus, a creative approach is required to master the concept of "creativity," which must be studied from various perspectives.

The current cultural and economic demand is intellectual creativity. The most important quality of creative abilities is improvement and the search for alternative ways to solve current problems.

In the research work of A.G. Binogradov, it is noted that "the ability to use and modify methods of one's own activity in various problematic situations arises from the ability to organize individual conceptual knowledge, which is one of the sources of individual differences in creative process abilities." [4, p. 123].

With high demand for intellectual creativity, the ability to decode information and ideas remains the most important. From an unfamiliar, incomprehensible form into forms, create a context accessible to simple human perception - at the verbal, categorical, and communicative levels [4, p. 207].

The concept of "the nature of creativity." How and is it necessary to determine?

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To begin with, let us consider the criteria by which creative activity is determined.

As the literature analysis showed [4; 7], scientists most often distinguish the following criteria:

- Optimality.
- originality.
- Unusualness of the solution.
- Social and historical uniqueness.

They exist as a product of creative realization, just as the creative process itself is the bearer of these qualities.

The fruit of creative labor exists in the material world, in the form of an object, or in the spiritual world: theories, ideas, scientific discoveries.

Creativity is the creation of new things in new ways. Creativity is not just about outstanding, socially significant discoveries that change the world. Creativity is the activity of every person who, perhaps, does not know publicity. For example, children's games in which activity, resourcefulness, initiative, originality, imagination, and decision-making variability are manifested.

In psychological and pedagogical research, authors [4] confirm the value of the creative process itself, preparation for this process, and its various multidimensional aspects. Special attention is paid to the means and methods of developing creativity.

The creative process unites various aspects of human existence:

- mental activity,
- human feelings and emotions.

However, the inclusion of these aspects in the creative process varies.

Creativity is the ability to deeply reflect on one's own experience, self-realization, self-expression, and self-strengthening through the realization of one's inner potential.

N.A. Berdyayev, in his book "The Meaning of Creativity," describes creativity as "individual freedom, a way of experiencing emotions, and eternal search" [1, p. 150]. According to B.I. Strakhov, labor and talent, realized in a person's creative activity and creative abilities, together create creativity [4,].

How to transform one's life experience and, on this basis, find new, better ways to exist – this is what scholar A. Mateiko tells us [8].

Renowned domestic educators, psychologists, and scholars such as G.S. Altshuller, S.A. Amonashvili, and L.S. Vygotsky wrote about creativity as a high-order need, the realization of which occurs during the formation of personality, human values, and overall life position.

Is it possible to solve daily life tasks without creativity, or should one simply drown in routine? L.S. Vygotsky writes about this, explaining in detail what is needed, adding, however, that only selected geniuses are capable of fully realizing their creative potential [2].

There are three types of creative abilities, which constitute three types of creativity phenomenology:

1. Stimulating-productive – various external stimuli determine the effectiveness of actions.
2. Heuristic - means a creative approach. The result is the creation of new objects, the extraordinary resolution of problems, and the birth of scientific discoveries.
3. Creative - a combination of found patterns leads to a much greater result than expected. There are 2 types of creative abilities:

Reproductive – mastering skills for a specific type of activity based on a template, algorithm, and mastering knowledge in the shortest possible time.

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Creative – the creation of something new and extraordinary through the independent activity of the individual.

The creative activity process consists of the following stages: researching the problem and the stages of implementing the problem's solution.

It should be particularly noted that the vast majority of scientific works are dedicated to the first stage.

There is also another view on the structure of creative activity:

1. Information selection, problem formulation.
2. Analyzing information, selecting solutions, and describing the sequence of actions.
3. Rest necessary for the analysis of the above.
4. A new perspective on the problem.
5. Defining the action algorithm.
1. Approbation.

The empirical study showed that the subjects clearly demonstrated an excellent ability to come up with unusual ideas, go beyond conventional problem-solving schemes, and do it much faster than before.

P. Torrens views the concept of creativity as "the process of sensing difficulties, problems, gaps in information, missing elements, inconsistencies in something, expressing assumptions and formulating hypotheses about these shortcomings, evaluating and verifying these assumptions and hypotheses, verifying and testing them, and finally summarizing the results" [6].

Separately, the research of K. Taylor and D. Gilford stands out - self-sufficient, independent of each other, which defines creativity as a sum of different abilities that have been developed to different degrees, rather than as a holistic quality [8].

F. Barron defines creativity as a way to expand and enrich experience, while M. Bollach defines it as the ability to put forward original ideas in the process of solving and at the stages of preparation for solving various problems [8].

S. Mednik describes creativity as the process of reorganizing parts into new combinations that are more useful and can perform new functions [8].

Based on the approaches described above, two main approaches to understanding creative (creative) abilities in terms of significance and driving force are clearly distinguished: intellectual activity and motivation.

Returning to the research of D.B. Bogoyavlenskaya, who made a huge scientific contribution to the study of creative abilities, it should be particularly noted that she described in this context the ability of a person to overcome the limitations of their own consciousness, under the influence of a deep interest in conscious activity. In the process of creative activity, authors investigate cause-and-effect relationships, form motivation for creating a new product, and solve the set goal. It is also necessary to consider a unique state called "creative impulse," in which the reserves of the psyche are activated and the individual enters a state of maximum activity. All of this together constitutes creativity. However, a number of researchers of human intelligence—P. Baisberg, F. Galton, G. Eisenk, D. Bexler, R. Sternberg, and L. Termen—hold a different opinion, asserting that the mutual influence of creativity and intelligence is insignificant.

Creative insight arises from the interaction between thinking and memory. This group of researchers did not distinguish creative abilities from other human abilities.

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For young men and women aged 16–18, the collective and the relationships within it play a special role in life. In this age group, young people are characterized by increased activity and a desire for activity. Students and schoolchildren of this age category are actively interested in the development of their inner world. These age characteristics influence the level of qualitative changes directly related to entering adult life.

Gradually, frequent mood swings manifest in young men and women, and impulsiveness and irritability are observed. Young people themselves face the heterogeneity of age-related changes, the need to establish themselves, define themselves, and realize themselves, including in the eyes of their peers. This age-related feature is the reason for the different levels of development among young men and women of the same age—personal development can outpace intellectual development, and vice versa.

All existing empirical experience, accumulated ideas about oneself and others, at the moment of transition from childhood to adulthood, becomes a decisive factor in the formation of one's own "I," which is not yet sufficiently stable but possesses certain characteristics and distinctive features. At this age, there is also a gradual distancing from significant adults, but at the same time, they are expected to understand goals and desires, the young person seeks understanding and support, he needs to feel the recognition of equal rights by elders in relation to him, otherwise, a conflict situation may arise.

A special place in the lives of young men and women is occupied by communication with peers, with whom they strive to define and compare their principles and values, begin to reconsider their attitude toward themselves, and transition from self-assessment according to adult criteria to self-assessment criteria formed independently.

Table 1

Indicators of creativity in early adolescence

Subjects	creative thinking	curiosity	originality	fantasy	intuition	emotional empathy	sense of humor	professionally creative relationship
1st year	15%	19%	12%	11%	8%	7%	9%	19%
3rd year	19%	21%	17%	9%	6%	5%	7%	21%

If we pay attention to the methodological results of the subjects, it was revealed that there are distinctive aspects in the manifestation of creativity within the Real Me framework. According to him, creative thinking is 15% among first-year students and 19% among third-year students.

In the process of creative thinking, processes such as solving, performing, discussing, reflecting, thinking, and hypothesizing certain tasks are completed through the application of methods and means of logical thinking. In the process of creative thinking, shortcomings and mistakes are sometimes made. As a result, a sense of doubt arises regarding the answers received and the tools

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used. As a result, there is a tendency toward a critical review of the results. Sometimes, the verification process may occur in parallel with the resolution of the issue.

In the process of creative thinking, a person relies on the help of others to solve a problem. In some cases, when solving a problem or task, creative thinking occurs in interpersonal relationships and communication. Communication consists of logical methods such as exchanging ideas, conversing, discussing, arguing, proving, and proving. As the history of scientific and technological progress shows, major scientific discoveries, philosophical observations, scientific theories, and most constructive creations emerged as products of social thought by great people and as progress resulting from collective thinking. Consequently, creative thinking merely enriches reality with an element of novelty as a result of systematizing the intellectual treasures of generations.

Solving problems through creative thinking is an interconnected cognitive process. However, it is absolutely impossible to turn creative thinking into a tool for solving problems. Therefore, it is advisable to distinguish between their subtle aspects. In particular, the resolution of a problem is carried out only with the help of thought, for there can and will be no other way. In turn, the question of thinking arises only during the decision. That is why thinking plays a key role in posing new problems, creating new ones, understanding them, and in other situations. Therefore, creative thinking is essential not only for solving problems but also for acquiring knowledge and critically analyzing objects and phenomena.

The process of creative thinking is inextricably linked to existing knowledge, the acquisition of new knowledge, and thinking. It should be noted that thinking plays a more important and relevant role in interaction. The main goal of the modern educational process is not to equip the student or adolescent with knowledge, but to teach them how to think. From this perspective, we can see that creative thinking is highly developed in the group of subjects.

The desire to know is characteristic of the group of subjects. This is determined by their increased interest in acquiring and mastering knowledge, as well as in natural and social phenomena. It should be noted that according to this scale, the indicators were 19% and 21%. Based on the indicators, it can be noted that the desire to learn develops with age and during preparation for professional activity.

The next scale of creativity indicates that originality results are also significant. Accordingly, it accounts for 12% and 17% of the group of subjects. Originality is characterized by the ability to advance an idea that differs from well-known, well-studied ideas. In terms of originality, they are distinguished by high intellectual activity and posthumousness. They may make great intellectual "jumps" or "discoveries" in finding solutions to problems, but this does not imply impulsivity. Because the originality of a solution is also distinguished by its ability to inhibit the emergence of surprising answers. Excessively original solutions and the "antique" nature of responses indicate certain mental or neurotic disorders.

A person can not only imagine things and phenomena that they have previously perceived throughout their life, but also imagine things they have never encountered before. In other words, a person can not only remember what they have already perceived, but also create new things in their life that they have never encountered before. Furthermore, when we read historical books about the lives of our ancestors or listen to a teacher's interesting stories about a foreign country, we form an idea of the aforementioned things. Imagination occurs through representations formed through images perceived during the process of imagining and the accumulation of such representations in our consciousness through memory.

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Imagination is the creation of a new thing in the form of an image or idea, the activity of the mind, that is, the activity expressed in creating images of previously unperceived things in the brain based on existing ideas.

We can see that among the subjects, women accounted for 11% and 9% respectively. This determines the active participation of the imagination in unlocking their creative potential. It is also emphasized that the broader a person's imagination, the stronger their creative approach becomes.

Intuition among the subjects is 8% and 6%. This is determined by people's ability to anticipate and creatively approach any new phenomenon. Intuition is also characterized by the ability to sense and anticipate any danger.

Emotional empathy accounts for 7% and 5% of subjects, respectively, and is determined by the presence of empathy toward others.

It is well known that an individual's emotions and feelings differ depending on their nature, depth, impact on activity, and intensity. The specificity of emotions and feelings lies in the fact that they express a person's attitude toward a particular phenomenon: positive or negative. Depending on the manifestation of emotions and feelings, it can be recognized that they are not deep or deep. Depending on the activity, emotions and feelings can be divided into stenotic and asthenic. Depending on the nature of emotions, they can be divided into: 1) emotional tone of feeling; 2) emotional sympathy; 3) mood; 4) conflict-prone emotional state; 5) high emotions.

The next scale of creativity is distinguished by its uniqueness in the group of subjects with a sense of humor. In particular, the increased requirements for professional activity and professional readiness distinguish them by a strong sense of humor. Furthermore, any creative person must possess a sense of humor. If we look at the results, it is 9% among first-year students and 7% among third-year students.

It is well known that not every field requires creativity from a person, and the teaching profession can be included among them. For this reason, we can see that the creative attitude toward the profession occupied 19% and 21% in the group of subjects. Indeed, we can say that pedagogy is one of the professions that requires creativity and a tendency toward innovation more than other professions, as the requirements for the pedagogical profession emphasize the need for a strong creative approach to one's profession.

From the results of the methodology, it can be seen that creativity is at a significant level in the group of subjects. This is due to their high level of creativity, as well as their unique attitude toward themselves and those around them.

Thus, creativity is a person's need to seek various approaches to self-realization in studies and professional activities through the recombination and creative application of existing approaches, as well as the search for their own original approaches with subsequent testing in practice. The realization of creative abilities fills a person with joy and vitality.

Since individual elements of creativity can exist in any form of human activity, this means that creativity (creativity) is not only artistic creativity but also technical creativity, mathematical creativity, etc. In our article, we examined the possibilities of implementing pedagogical creativity.

Students are characterized by ambition and a desire to gain social recognition. In modern society, the profession of a teacher is not prestigious, but despite this, many teachers are very creative in their professional activities. However, to inspire students, we believe it is appropriate to invite more practitioners as part-time employees who are realized in the profession, so that they pass on their own

experience of traveling the path, including showing students the possibilities of creatively solving professional tasks.

Modernity demands that young specialists be captivated, inspired, and taught to derive joy and pleasure from their work. Without applying a creative approach to teaching, this is impossible.

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