

Creativity in The Structure of Professionalism of a Higher School Teacher

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In the science, due to the absence of strict and exact criteria for differentiating between creative and non-creative activities of a human, there is no rather full definition of 'creativity' notion despite that this matter was addressed by many scholars. Multifactor field in the science on creativity allows interpreting the essence of 'creative personality' notion as the set of independent separate characteristics identifying original individuality of a personality and the highest degree of its creative achievement. Meantime, creative approaches to the solution of professional tasks show the creative essence of a higher school teacher and are manifested in creative activity. On the basis of the analysis of literature on the research topic, the notion of 'development of creativity in the structure of professionalism of a higher school teacher' was formed: the activity seeking to establish purposed desire for creativity in a higher school teacher's personality in the course of exercising his/her professional duties and development of his/her personal qualities required in that connection. In the course of the research it was acknowledged that development of creativity in a higher school teacher includes: a personality's need in creative activity; creative skills; characterological personal features; individual specifics of psychological processes. The author, based on own experience, rationalizes the suggestion that the principal factor of successful training of adults (post-graduate studies, skills upgrading, professional retraining) is creative organization of not only the academic process but also of creative cooperation at all the stages of communicative chain 'higher school teacher – adult trainee'.

Keywords: creativity, professionalism, training scientific and pedagogical staff, post-graduate study, skills upgrading, professional retraining

INTRODUCTION

The objective of this research is elaboration, rationalizing and implementation of theoretical and methodological basics of creativity development in the structure of professionalism of a higher school teacher in teaching adults (post-graduate students, trainees in extra professional programs on skills upgrading or professional retraining).

Literature review

Training scientific and pedagogical staff in post-graduate training programs, skills upgrading and professional retraining require drastic changes not only in the

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content of teaching, its types/forms, but also in the organization of mutual interaction between trainees and teachers. Creativity in professional structure of a higher school teacher is a factor to achieve the prescribed tasks of adults training.

Attempts to give an academic interpretation of 'creativity' category go back to Plato and Aristotle times. The variety of creativity, its conditions and stimulators were touched upon by the foremost natural scientists H. Helmholtz, M. Sechenov, A. Einstein, M. Planck, V.I. Vernadsky and others. The earliest publications covering on some aspects of creative activity are works by V. Cousin, M.A. Blokh and others.

Based on K. Platonov's ideas on dynamic functional structure of personality, it may be concluded that creativity is the structure of a higher school teacher's professionalism is comprehensive and multifactor in its nature. Multifactor doctrine in the science on creativity interprets 'creative personality' notion as a set of particular independent separate qualities identifying original individuality of personality and the highest degree of its personal achievements (Platonov, 1975).

Creative approaches to solving professional tasks reflect the creative essence of personality and are manifested not only in personal creative activity but in creative interaction with trainees. The point is only adult people, educated, skilled in connection with learning. As evidenced by the author's experience, the analysis of scientific and methodological literature, it is often of negative nature. Many trainees perceive the teacher as the person to give them knowledge with minimal participation on their part. Such a situation is inadmissible. There are many methodologies, techniques, didactic instruments to get adult trainees involved in active academic activity. Creativity is the absolute leader in any approach to solve the above problem.

Development of a higher school teacher's creativity suggests the following:

- a personality's need for creative activity;
- creative skills;
- characterological personal features;
- individual specifics of psychical processes.

Those provisions were laid as the basis of the concept for creativity development in the structure of professionalism of a higher school teacher, realizing educational programs for training scientific and pedagogical staff – post-graduate programs on extra professional skills upgrading or professional retraining as continuous education for adults. E. de Bono opines that old-fashioned views on creativity (like brainstorm) emphasize on the shift away from common sense by people – they are given the freedom to say anything. This is an incorrect approach to creativity. The scientist gives an example: imagine a man tied with a rope and a violin near him. May it be stated that if the rope is cut, the man will become a violinist immediately? The idea that all people will become creative personalities if they are freed from barriers contains little truth. Human brain is not naturally creative. Its assignment is to produce certain models obtained in previous life experience and to use those models in life. As opined by E. de Bono, the ability to create is not a mysterious talent but a skill which may be self-developed. As for any other skills, not everyone is able to master that skill. If a person does not do anything to develop this skill, the scientist opines that creativity may depend only on natural talent and motivation. In 1969, E. de Bono wrote 'The Mechanism of Mind' where he described how brain's neural network allows the incoming information to get arranged into particular models. Creativity is a behavior in self-organizing information system which creates asymmetric models. Creativity implies 'lateral' movement through those models. E. de Bono opines that it is impossible to understand such creativity until the difference between self-organizing systems with 'active surface' and information systems with 'passive surface' is understood. There are specific means and techniques which may be learnt, trained and applied in a correct and rationalized way. The system of arguments developed by Plato, Aristotle and Socrates is

inefficient now. It was created to know 'how it may be'. E. de Bono developed '6 hats method' to ensure 'constructive idiom' thinking. In parallel thinking everyone at any moment is looking in the same direction. Then the direction changes and everyone is looking in another direction (de Bono, 2012).

A criterion of the creative act, as per Ya.A. Ponomaryov, is level-sensitive transition: need for new knowledge is built up on the highest structural level of the organization of creative activity; means to satisfy that need are built up on low structural levels. They get involved in the process on the top level causing a new way of interaction between subject and object and new knowledge to emerge. Thereby, creative product suggests triggering of intuition (role of the unconscious) and may not be obtained via a logical conclusion. As per Ya.A. Ponomaryov, the basis of success in solution of creative tasks is the ability to act 'in mind'. Such ability is possibly a meaningfully structural equivalent of the notion of general ability, 'general intelligence'. Creativity may be related to two personal characteristics, namely intensity of search motivation and sensitivity to side notions emerging in the course of thinking. Ya.A. Ponomaryov considers a creative act as included in the context of intellectual activity in compliance with the scheme: at the initial stage of problem setting, consciousness is active, and then, at the solution stage, unconsciousness is active while consciousness is engaged in choosing and inspecting the correctness of solution at the third stage. It is natural that if thinking is initially logical, i.e., reasonable, creative product may emerge as a side product only. But that variant is only one of those possible.

As a mental unit to measure the creativity of a thinking act, a quantum of creativity, Ya.A. Ponomaryov offers to consider the difference of levels dominating in setting and solving a task (any task is always solved on a higher level of structure of the psychological mechanism than the one on which the means to solve it are obtained) (Ponomaryov, 1976).

Recently, D.V. Ushakov has developed the approach of Ya.A. Ponomaryov in the psychology of individual differences. From the point of view of D.V. Ushakov, people possess various abilities in connection with the establishment of intuitive experience. The intuitive experience is formed on the periphery of our consciousness area and regardless from the connection with the direct purpose of our activity. That experience serves as the material for unconscious processes of transformation of knowledge; therefore, its richness is related to human creative abilities. In Russia, where creativity research is developing, a number of national guidelines were created seeking to diagnose the creative abilities. D.B. Bogoyavlenskaya stresses that the traditional studies of thinking and testing thinking abilities and creative giftedness (tests, problem situations) impose material restrictions on the manifestations of a tested person's giftedness. He/she demonstrates as much abilities and knowledge as 'required' by the task set. In compliance with this point of view, the author formulates the following principles and requirements brought to the methods of research and diagnostics of giftedness:

1. Rejection of external driver and prevention of manifestation of internal assessment stimulation;
2. Absence of any 'ceiling' restricting the area of a tested person's activity; that area, in contrast, should conceal some hierarchy of dependencies and problems, setting which is not necessary for successful implementation of the given instruction;
3. Rejection of strict limitations in connection with length of tests.

All the phenomenology of creativity is divided by D.B. Bogoyavlenskaya into three kinds corresponding to the types of creativity. Stimulation-productive – an activity may have productive nature but that activity is every day determined by the impact of any external stimulus. Higher manifestations on that level are reflecting high degree of intellectual abilities and are identical to 'general giftedness' notion.

Heuristical – an activity is acquiring creative nature. Having a rather reliable way of solution, a man proceeds to analyze the composition and structure of his/her activity, to correlating separate tasks with each other getting driven to discovering new original, seemingly more ingenious ways of solution. Creative – independently found empirical dependency is not used as a way of solution but acts as a new problem. The dependencies found are subject to be proved via the analysis of their initial basis. An individual's acts acquire creating nature and are losing the form of response. Thus, D.B. Bogoyavlenskaya opines that creativity in the narrow sense begins where it terminates to be just a response, just a solution of the previously set task. Meantime, it remains a solution and a response but it contains something 'besides' which determines the creative status. The two last levels fix what is called by D.B. Bogoyavlenskaya and her followers 'creative giftedness'. It is generally known that a need for creativity is a fundamental human need. However, for its practical realization the respective conditions are required. It is imperative to know how under the influence of external and internal factors active position of a human is established, how in the course of some or other activity and achievement of results in changing conditions a new quality of human creative giftedness emerges (Bogoyavlenskaya, 2002).

Philosophical consideration of the essence of creative process (G.A. Batischev, S.S. Goldantrikht, G.A. Davydova, K.A. Abulkhanova-Slavskaya, V.G. Sagatovskiy, A.T. Shumilin, M.S. Kagan and others) allowed identifying the basic features of creativity category. Studying the activity and creativity as a kind of activity, S.L. Rubinshtein stressed that any activity is creative if it creates something new, original which later becomes part of the history of not only the creator but science, arts, etc. To some extent, the moment of invention, creativity is always represented in labor. L.S. Vygotskiy, T.V. Kudryavtsev, M.M. Matyushkin, V.L. Ponomaryov and other psychologists found out the unity of creative process in children and adults: identical stages of flow and activeness, same stress, states and qualities. If a product is created in the course of creative activity, which is unique for the human practice, its novelty is objective. If it is new for the creator only, its novelty is subjective. In psychological and pedagogical studies by K.K. Platonov it is noted that of great significance in creative activity is training of emotional volitional qualities of a personality manifested in development of such components of will activity as attention, insistency and ability to arrange own labor activities in disturbance conditions. Creative activities manifest the attitude to labor. Any activity may include a moment of creativity. Creativity issue in practice was studied by B.M. Teplov. He showed that for developed practical thinking the ability to manage comprehensive situations and to immediately find a correct solution is typical.

Upon the analysis of the related literature we introduced the term 'development of creativity in the structure of professionalism of a higher school teacher' interpreted as an activity aimed to form purposed need of a higher school teacher in creativity in the course of his/her duties and development of his/her personal qualities required in that connection.

METHODOLOGY OF RESEARCH

- Philosophical level: laws of dialectics; philosophical ideas and concepts on unity of conscious and activity; theory and practice; integrity of the academic process;

- General scientific level: ideas and basic provisions of activity-related, technological approaches as ways to optimize the academic process including teaching adults; theory and concepts of creativity development;

- Particular scientific level: theories; ideas on continuous education of adults; theories to design and model educational systems.

Stages of research

I stage – review and analysis: analysis of philosophical, psychological and pedagogical, scientific and methodological literature on the issue of creativity development in the structure of a higher school teacher's professionalism (pedagogical instruments to monitor the phenomenon studied; monitoring program, etc.); analysis of activity of higher school teachers implementing extra professional programs to upgrade skills; identification of the need to develop creativity in the structure of professionalism of a higher school teacher to teach adults.

II stage – theory and analysis: theoretical and methodological and conceptual basics of creativity development in the structure of professionalism of a higher school teacher; model was drafted to develop creativity in the structure of professionalism of a higher school teacher; set of criteria and indicators to measure creativity manifestation in professional activities of a higher school teacher; set of documents was prepared to monitor the studied phenomenon.

III stage – construction and experiments: research hypothesis was experimentally checked based on supposition that creativity development process in the structure of professionalism of a higher school teacher for efficient training of adults meeting the contemporary requirements and public and governmental demands will be successful, if:

- concept for creativity development in the structure of professionalism of a higher school teacher implementing extra professional programs to upgrade skills is worked out and rationalized;

- set of basic principles of creativity development in the structure of professionalism of a higher school teacher is rationalized;

- science-based program/methodological and technological support for the research phenomenon (criteria and indicators; diagnostic tools, set of psychological and pedagogical conditions) is implemented;

- case seminars, trainings, original special courses and unit program 'Development of creativity in the structure of professionalism of a higher school teacher'; research and experimental works; results of research and their presentation in scientific and science and methodology guidelines.

IV stage – finalizing: generalizing and systemizing basic theoretical and practical conclusions of the research; identifying efficiency of theoretical provisions of the concept and organizational and management model for creativity development in the structure of professionalism of a higher school teacher upon their approbation in extra professional education system; reflection of research results in main publications.

RESULTS AND DISCUSSION

The experience of teaching adults allows specifying group work as a possible variant of creative cooperation enabling to solve the expansion or sometimes establishment tasks in connection with professional competences of hearers of skills upgrading or professional retraining programs. The essence of group work as a form of creative cooperation is that it is such an organization of the academic process which makes impossible adults' failure to participate in collective complementary cognition process. A teacher, motivating for group work in some or other form, underlines that the results depend on everyone. Meantime, group work allows hearers to realize their natural strive for communication and cooperation. Back in 1960s, J. Brunner stressed that only where common activities are required, where

cooperation is of urgency to achieve the group goals, active involvement of individuals in learning and establishment of competences occurs (Brunner, 1966).

Each of group members regardless of age, gender, professional experience and position are equal group members and deserve respect. It means that opinions of all are equally important and equitable, everyone possessing unique life and professional experience ready to share it with others and that the task caused a group to gather is of significance and urgency for everyone.

The opinion that group organization methods depend on the objective of the meeting is generally accepted. The most required are the meetings of professional communities:

- Discussion, assisting to identify the opinion of a group on a particular matter;
- Research, when intellectual potential, energy and fantasy of group members are mobilized to find the scientific rationalization and problem-solving practice;
- Solution of particular situations when based on members' opinions a group takes a single decision.

Joint group activity includes exercising of tasks offered by the leader. Group discusses the task and ways to solve it. Group members decide who of the members will present the group work results.

Important components of cooperation of learning adults in the course of group work are positive feedback; personal cooperation to stimulate activities; individual and group reports; interpersonal communication skills and small group communication skills; processing of data on group work. As evidenced by the author's experience, systematic use of the above basic components in group learning allows building the activities of learning adults based on general efforts to solve the task set.

That aspect of work organization in adult groups is principal. Positive mutual dependency is a rather complex situation in working with people having certain life experience. A teacher's task is to create in each group member the understanding that in the solution of the task received they are equally connected with each other; one cannot be successful unless all group members can. The secret of a teacher's success in a particular learning situation is in the ability to let the group know that they either 'drown' or 'swim out', but only all together. Positive intersubstitutability of adults in group work may be considered established if each group member understands the following:

- efforts of each group member are significant and irreplaceable to achieve success for all the group;
- each group member makes unique contribution in group's common efforts due to his/her abilities and fulfilled duties in solving the task received.

Such attitude of hearers to group learning creates interestedness not only in own success but also in success of other group members which is the essence of learning in small groups.

Personal cooperation stimulating the activity requires, besides internal attitude towards joint activity, the observance of external attributes enhancing successful work. Face to face position of hearers is important. Experience of work with adults allows stating the important kinds of interpersonal dynamics being possible only in case when learners mutually assist each other in their studies:

- explanation in the course of problem discussion how to solve it some or other way;
- transfer of available knowledge to each other;
- checking for understanding the essence of problem being solved;
- discussion of studied notions and therefore conversation in the same language;

- combining the studied material with available data and practical experience.

Therefore, due to personal interaction, mutual support in group work of learners, adults assume the liability regarding each other and group in general.

Individual and group reports provide for liability of each group member for his/her part of work and that of the whole group for the fulfillment of tasks. The individual component of group work is used by teacher when there is a task to assess the activity of each hearer: who needs assistance, support and praise in the end of work.

Development of interpersonal communication skills and communication in small groups is a comprehensive process. It is much simpler to develop competitive, individual training of adults. A teacher's tasks are the organization of work in such a way that hearers could simultaneously do a particular task and carry out group work, efficiently functioning as a unified group. Competent use of social skills of adult learners (leadership, governance, decision making, communication, prevention of conflicts, etc.) ensures successful group work on fulfillment of a particular academic task.

Adults, unlike children, may never be forced to learn because 'it is necessary'. If they see no sense or do not understand the goal, they are uncomfortable with each other and they will always find a way to get 'switched off' and arguments and explanations will be rather sound. Organizers of adults' training should remember the psychological comfort in a group. The basis of psychological comfort is the understanding that an adult should feel assured and safe.

A. Maslow noted that in each person two needs are dominating: need for continuous growth and need for safety. Meantime, if there emerges a situation of choice, need for safety is chosen. Need for safety should be satisfied faster than the need for personal growth and opening new things. In compliance with Maslow's concept, growth is occurring via small steps and each next step is possible only when feeling of safety is existent (Maslow, 1968). One of the most important ways to achieve safety is uniting with other people. The feeling of group belonging allows a human to overcome difficulties.

In the interpretation of creativity category, scholars strive to reflect its specifics: they considered creativity in various kinds of activities, identifying general and specific, age peculiarities and educational opportunities, attempting to algorithmize it, however, the notion on creative process's individuality remains firm.

Creativity is the highest level of human cognition of various forms of matter. This is a comprehensive multilevel process existing as synthesis of cognitive, emotional and volitional human psycho, as interaction of the reflection of the external world and activeness of personality, scientific and inventive activities.

Creativity in the narrow and applied sense is directly linked to the human activity. Therefore, there are as many definitions of creativity as there are kinds of human activity.

Pedagogical interpretation of 'creativity' term suggests not only creation of an objectively original product but a subjectively new, i.e., unknown for a particular person. Creative activity, as opined by A.N. Leontiev, is an independent search and establishment or construction of some new product (in an individual student's experience) – new, unknown knowledge, method, etc., but known in the public experience.

The urgency of this issue to date is determined by the specifics of the contemporary stage's where a man is always experiencing external and internal crises to be overcome by independent decisions, creative self-transformation and the transformation of the world. In the rapid global changes, inability for creative activity is fatal for the society: K. Rogers noted that when scientific discoveries and inventions increase exponentially, a passive and culturally restricted person is

unable to manage the growing flow of questions and problems. If particular individuals, groups or nations are unable to imagine, invent and creatively conceptualize how to approach those comprehensive changes in a new way, we all will perish (Rogers, 2002).

The creative process is characterized by many scholars as the activeness of psychic activity employing mobilization of intellectual, emotional, volition spheres of personality to achieve the goal (Ponomaryov, 1976); developing leadership (Sergeyeva, 2015).

Being in essence a cultural and historical phenomenon, creativity employs a psychological aspect, personal and process-related. It suggests the availability in a personality of abilities, motives, knowledge, skills, due to which a product is created, distinct in novelty, originality, uniqueness (Andersen, 2002; Runco, 2004). Creativity development in the structure of professionalism of a higher school teacher is an urgent scientific task seeking for theoretical and practical solution. That task acquires special urgency in teaching adults who have own professional experience, fully developed views, long-standing relationships, certain values. As evidenced by the author's experience, a principal factor in successful teaching adults is creative organization of not only the academic process but also creative cooperation at all the stages of communication chain 'higher school teacher – learning adult'.

Scholars consider creative activity ensuring the achievement of both objective and subjective novelty as follows:

- independent in-system and inter-system transformation of knowledge and skills in connection with a new situation;
- ability to see something new in a traditional problem (new contradictions, hypotheses, etc.);
- view of the new functions of an object;
- accounting for alternatives in the course of problems solution;
- establishment of brand new approaches, etc.

In the research of creativity development in the structure of professionalism of a higher school teacher teaching adults not only creative skills and specifics of the psychological processes have been studied, but also a personality's inclination towards creative activity. Based on the fact that professionalism is a comprehensive multicomponent structure, development of creativity is conditioned by not only the specifics of the creative process, but transition of creativity into professional activity. Based on the ideas of foreign (Baron *et. al.*, 2003; Simonton, 2000; Sternberg *et.al.*, 2003) and national scholars (Vershlovskiy, 2002) in education of adults and lifelong education the essence of the notion 'development of creativity in the structure of professionalism of a higher school teacher teaching adults' was rationalized.

CONCLUSIONS

The scientific task to develop theoretical and methodological provisions of extra professional programs to upgrade skills still requires its solution, while the worked out materials in connection with creativity development in a higher school teacher in his/her professional activity promote efficient teaching of adults. Based on the author's concept, programs for trainings, case seminars held in higher school were developed and implemented. Extra professional program 'Basics of creativity' was implemented in Russian educational public organization 'National System Integration'. The participants of the pedagogical forum are scientific supervisors of winners of distance stages of 'Youth. Science. Culture', 'My Legislative Initiative' contests (2009-2015). The content of the concept was disclosed not only via the practical instruments to implement its basic provisions (trainings, cases, programs)

but also via the development and introduction of organizational and management model to develop creativity in a higher school teacher's professionalism structure.

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