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An extended abstract of a paper on the subject of: “Creativity Content and Development in the Sphere of Education”

Problem setting. *The current period of social development in the country requires the definition of the form and content of psycho-pedagogical education at its different stages. The theoretical basis for their gradual implementation should be division of skills into reproductive and productive levels, known in psychology. The development of productive abilities is the main purpose of higher levels of education. It is developed productivity of special abilities that will guarantee ability to solve professional problems creatively and pass professional knowledge and skills to others.*

Recent research and publications analysis. *When analyzing the content of the notion "creativity" in various sources, two types of views can be singled out. The first ones are those which use the ability to add insufficient information as the basis of definition. The other opinions include those which use the ability to find one's way in excessive amount of information and to systemize it as the basis. Creativity includes both above-mentioned abilities. Creativity is the systemic quality of intelligence system, the main characteristics of which are: a high degree of sensitivity to the disharmony of elements in the structure of the problem, which can manifest itself in the lack of elements, in the violation of their order, in the excessiveness of information; a desire for correctional disharmony: correction possibility, based on the corresponding intellectual armament.*

Paper objective. *The objective was to systematize means of creativity and to define approaches to their use in the process of education.*

Paper main body. *The study of level of interaction of memory and thinking, determining the measure of its efficiency can be used as a means of diagnostics. This high efficiency of interaction of memory and thinking provides for intelligence creativity, a high level of individual mental experience organization. This opinion is confirmed by a number of national and foreign researches on productive function of memory.*

While solving the problem of finding optimal ways of creativity development we considered the following theoretical grounds. Creativity is a process the sides of which include "logos" and "chaos" (order and disorder). In the creative process the increase of degree of orderliness of an object of creativity in one respect is most often connected to its decrease in the other. Traditionally the study of ways of optimal creative process organization followed the scheme "from chaos to logos" (to order, connections, succession, and structural organization). Many researchers dealing with this problem paid the most attention to fining the methods of enhancing creative pursuit (finding optimal ideas from the chaos of ideas). Such methods include the methods described by us above. The core of these methods is the right organization of tactics of going over variants ("trial and error" technique). As a result, the participants of the creative process who use the methods of enhancing creative pursuit could generate more variants of ideas per unit of time (in other words, just speeding up the pursuit by "trial and error").

One more methodology is possible for creative pursuit (unfortunately, it isn't studied enough). The main idea is that as a result of creative process the deprivation of familiar and customary models in the structure of information and transfer to new, more flexible structural

models “logos-chaos-logos” take place.

In methodological sense we are talking about the development “in a spiral”.

Creativi-

ty is equally a process of achieving something new, valuable and original and it is also the process of correcting mistakes made in the previous creative process. The main form used by a person for correcting mistakes is making algorithms, structural points in material, semantic and logical standards of its construction. Therefore, the outcome of the creative process is something that can be repeated, structured, and in this form conveyed to another person. On the one hand, structural points, patterns, algorithms are the aim and the result of a creative process. On the other hand, the creative process is overcoming hard patterns and finding more flexible patterns (that means finding such system formations, in which the number of parts and the nature of connections between them ensures a greater number of degrees of freedom). On the one hand, structural patterns and algorithms are the basis of the so-called psychological inertness and stereotypeness of thinking. On the other hand, they serve as a starting point of creativity process and, in this way they can become organizers of thinking, its flexibility, divergence and creativity.

Conclusions of the research. *Thus, one of the ways of creativity development is a process of finding patterns and their consolidation in a long-term memory. Memory patterns are understood as rational points in information formation. Such rational points can be formal and logical structures, praxeological algorithms and so on. Mastering such points (samples), on the one hand, promotes the consolidation of information in a structured form. On the other hand, it ensures a more effective realization of thinking operations when processing information. Such interaction of memory and thinking has a productive nature, having a positive effect on the efficiency of the course of cognitive processes when performing creative tasks. The experimental testing of this methodology in the process of education demonstrated the efficiency of methods based on the aspects described.*