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**PERSPECTIVES OF USING THE PSYCHOLINGUISTIC
APPROACH IN THE INVESTIGATION OF METAMEMORY AND
VERBAL CREATIVITY INTERACTION**

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The Aim of the study is to analyze the basic theoretical and methodological prerequisites for research on the creativity and metamemory of the personality of the future in the process of professional training.

Material and methods: the procedure of correlation analysis by K. Pearson, the nonparametric t-criterion by Student, the verbal creativity test by S. Mednik (in the modification by A.N. Voronin), the experimental-introspective method of the research on metamemory (Khomulenko, 2014) were used. The empirical calculation includes the students of the first, third and fifth years of study at the State Higher Educational Establishment "Donbas State Pedagogical University" (Slavyansk) with a total of 180 individuals and aged from 18 to 30 years. We have been focused on the indicator of verbal creativity on the account of the specifics of the educational activities of our respondents, they largely deal with verbal information.

Results: There are significant theoretical preconditions for the study of the relationship between metamnemonic and creative mental qualities; namely, human reflection on his own cognitive and mnemonic experience in certain types of activities can positively influence the efficiency of human production of new ways and products of such activity. The greatest interest is in presence of statistically significant positive correlation of indicators of mnemonic reflection and metamnemonic reproduction with indicators of originality and uniqueness of figurative creativity. The statistically significant decrease in the average values of the indicators of mnemonic reflection and mnemonic reproduction from the first to the third year of study is impressive, while from the third to the fifth year of study there is a statistically significant increase in the indicators of mnemonic reflection and mnemonic reproduction.

Conclusions: The use of modern scientific developments in psycholinguistics as a branch of scientific knowledge can significantly contribute to understanding and describing the mechanisms of interaction of metamemory and verbal creativity in the process of human activity that leads the author to devote further scientific research to this problem.

Keywords: personality, subject, student, learning, metamemory, verbal creativity, psycholinguistic, creation.

Перспективи застосування психолінгвістичного підходу у дослідженні зв'язку метапам'яті та вербальної кретивності

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Метою дослідження є аналіз основних теоретичних та методологічних передумов для дослідження творчості та переживання особистості майбутнього у процесі професійної підготовки. Існують значні теоретичні передумови для вивчення зв'язку між метаемнічними та творчими психічними якостями; саме людське відображення на власному когнітивному та мнемонічному досвіді деяких видів діяльності може позитивно впливати на ефективність виробництва людей новими способами та продуктами такої діяльності. Найбільший інтерес викликає наявність статистично значущої позитивної кореляції показників мнемічної рефлексії та метамнемічного відтворення з показниками оригінальності та унікальності невербальної кретивності. Статистично значуще зниження середніх значень показників мнемічної рефлексії та метамнемічного відтворення з першого до третього року навчання є вражаючим, тоді як з третього-п'ятого року навчання спостерігається статистично значне збільшення показників мнемічної рефлексії і метамнемічного відтворення. Використання сучасних наукових розробок у психолінгвістиці як галузь наукового знання може значно сприяти розумінню та опису механізмів взаємодії метапам'яті та вербальної кретивності в процесі людської діяльності, що приводить автора до присвяченню подальшому науковому дослідженню цієї проблеми.

Ключові слова: особистість, суб'єкт, студент, навчання, метапам'ять, вербальна кретивність, психолінгвістика, творчість.

Introduction. In different periods of the development of psychological science, in different systems of concepts and within different scientific schools, creativity was regarded as a function of intelligence and its derivative, as a completely independent from intelligence personal construct, as a situationally related to the intelligence discrete characteristic of the individual. At the same time, the characteristics of mnemonic processes, as the prerequisites for an effective rethinking of the own human life experience (including the experience of human creative activity), and its consideration in further activities, including both educational and professional, and still are under consideration by the researchers to answer the numerous questions about mechanisms, properties and patterns of creativity of the individual. In the transition to the meta-level, expediency and relevance of the scientific research on the interaction of the subject mnemonic and creative activity increase considerably.

The **aim** of our work is to analyze the basic theoretical and methodological prerequisites for research on the creativity and metamemory

of the personality of the future in the process of professional training. In accordance with the goal of the study, the following tasks were identified: 1) to determine the modern scientific and theoretical preconditions for the study of metamnemonic and creative psychological characteristics of the personality of a modern student-teacher; 2) empirically describe the main psychological peculiarities of the relationship between metamnemonic and creative personality traits of a modern student of a pedagogical university; 3) to expand scientific information about the psychological dynamics of creativity and metamemory of a student-teacher during his educational activities.

Methodology of Research. As methods and techniques of empirical research, we used the procedure of correlation analysis by K. Pearson, the nonparametric t-criterion by Student, the verbal creativity test by S. Mednik (in the modification by A.N. Voronin), the experimental-introspective method of the research on metamemory (Khomulenko, 2014). The empirical calculation includes the students of the first, third and fifth years of study at the State Higher Educational Establishment "Donbas State Pedagogical University" (Slavyansk) with a total of 180 individuals and aged from 18 to 30 years. We have been focused on the indicator of verbal creativity on the account of the specifics of the educational activities of our respondents, they largely deal with verbal information.

Results. As we see, in order to increase the efficiency and effectiveness of cognitive (including, mnemonic) mental processes, a person in a certain way tries to rethink, modify, and reorganize his cognitive and mnemonic experience by uses reflection. Similarly, in the case of solving a creative problem or problems, a person plunges into the state of a subjective problemativeness, characterized by a high degree of uncertainty and subjective freedom. In this case, becoming a subject of the creative process, a person understands that the solution to this problem can be found only through its own activity. In this case, the reflexive functions of the psyche of the subject contribute to the activation and release of its creative potential - creativity, at the same time transferring it into the meta-level, turning it into meta-activeness (abnormality), and significantly increasing the efficiency of the creative process and thus, saving vital forces and mental health of the subject of the creative process. Taking the specifics of our study into consideration, the processes and mechanisms of speech production, the processes and mechanisms of speech comprehension (both oral and written) are the most interesting and of greatest heuristic value for us.

First, we have analyzed the dynamics of values of verbal creativity indicators (indexes of originality and uniqueness are considered by us as the most informative indicators) and metamemory (metamnemonic awareness, mnemonic reflection and metamnemonic reproduction) during the student's training at a pedagogical university. We observe that from the first to the third year of study there is a statistically significant decrease in the values of indicators of mnemonic reflection and mnemonic reproduction ($p < 0,01$), while the values of the indicator of mnemonic awareness are at approximately the same level. From the third to the fifth year of study, on the contrary, there is a statistically significant increase in the indicators of mnemonic reflection and mnemonic reproduction ($p < 0,05$). The value of the indicator of mnemonic awareness increases in absolute terms, but this growth does not become statistically significant at an adequate level. By comparing the values of the metamemory indicators of students in the first and fifth years of study, again, there is a certain increase in the average values of the indicators of mnemonic reflection and mnemonic reproduction, but it does not become statistically significant. In addition, there are no significant changes in the average values of the mnemonic awareness indicators.

Analyzing the dynamics of verbal creativity of students-teachers, we note that according to the average values of the most informative indicators (originality, uniqueness), there are no statistically significant differences between the first and third years of education, although there is a certain increase in them. At the same time, from the third to the fifth years of study at the pedagogical university there is a statistically significant increase of the above indicators of figurative creativity ($p < 0,01$). After the third year of study, closer to the end of the training, the subject is already more knowledgeable about the ways of the activity, its specificity, etc., and thus, is able to demonstrate a much greater degree of non-triviality of explaining their own actions and actions aimed at achieving the final result.

Analyzing the results of the correlation analysis of the empirical metamemory indicators and the verbal creativity of the student, we note the existence of a statistically significant positive correlation between the indicator of mnemonic reflection and the originality indicators ($r = 0,38$) and uniqueness ($r = 0,65$) verbal creativity; between the metamnemonic reproduction index and the originality index ($r = 0,57$), uniqueness ($r = 0,45$) of verbal creativity.

Discussion. In modern scientific psychological understanding, creativity appears primarily as: "... the ability to generate new ideas, solutions, methods, theories, in general, any new products of activity" (Sventsitskii, 2008). That is, it is a motivated ability to innovate, which is

also determined by a number of non-linear, multilevel personal characteristics of the person who creates. Besides, the inability to make creativity reduction to a purely intellectual characteristic and to present creativity as a certain function, kind, and derivative intelligence begins to emerge.

S.D. Maksymenko considers creativity as one of the principles of constructing a genetic modelling method of personality research. The author points out the fact that « ... creativity is a deep, primitive and absolutely natural personality trait - this is the highest form of activity that creates and leaves a mark when it is embodied. On the other hand, creativity means the desire to express its inner world» (Maksymenko, 2006).

M.M. Kashapov as an important psychological characteristic of the creative thinking of the teacher, which allows him to develop the creativity of students, considers abnality - the complex ability of the lecturer (teacher) to adequate perception, comprehension, understanding and acceptance of a creative student, the ability to notice a gifted child and provide him with the necessary psychological and pedagogical support in the development of his creative potential (Kashapov, 2013).

J. Fleiwel and H. Welman, actively exploring the possibilities of developing cognitive and mnemonic abilities, mean metamorphism as a certain system of generalized ways of organizing mnemonic activities and a set of prerequisites for the effective use of mnemonic operations and techniques (in particular, planning and control), which act as components of the mnemonic arsenal of the subject of mnemonic activity (Fleiwel, Welman, 1977).

The most thorough research, in our opinion, by foreign researchers to the definition of metamorphism as a psychic phenomenon was done by R. Kluge who investigates the interaction of knowledge and control in the process of formation of metacognitive reality and tries to distinguish the two-component structure of metamemory, namely: the cognitive side (information about memory in the general sense and awareness of individual peculiarities of own memory, etc.) and the procedural side (the analysis of the effectiveness of the strategies used to memorize, control and regulate its processes) (Kluge, 1982).

According to T.B. Khomulenko, a thorough empirical study of metamemory "... should include the indicators of mnemonic awareness, the differentiation of self-esteem, its adequacy in the manifestations of predictability, the propensity to plan the memory process, monitoring the process of remembering in the manifestations of reflexive functions

(research, critical, normative) and selective reproduction (Khomulenko, 2014).

With regard to psycholinguistics as a branch of psychological science, in the historical and psychological aspect it was regarded as a field of studies of the conditionality of speech processes and the perception of the structure of a particular language. In the days of Soviet psychology, psycholinguistics were developed predominantly around the theory of speech activity (Petrovskiy & Yaroshevskiy, 1990). At the same time, there were attempts to consider psycholinguistics as a separate science, which included comprehensive research on speech behavior both by psychologists and by linguists. It was emphasized that unlike linguistics and speech psychology, psycholinguistics has an independent subject of research. One way or another, the subject area of psycholinguistics was applied to the processes and mechanisms of speech production, processes and mechanisms for understanding speech by the participants of communication, and the processes and mechanisms for the formation of speech in ontogenesis (Davydov, 1983).

Conclusion and future implications. According to the results of the research we can draw the following conclusions: 1) there are significant theoretical preconditions for the study of the relationship between metamnemonic and creative mental qualities, namely, human reflection on his own cognitive and mnemonic experience in certain types of activities can positively influence the efficiency of human production of new ways and (or) products of such activity; 2) the greatest interest is in presence of statistically significant positive correlation of indicators of mnemonic reflection and metamnemonic reproduction with indicators of originality and uniqueness of figurative creativity; 3) the statistically significant decrease in the average values of the indicators of mnemonic reflection and mnemonic reproduction from the first to the third year of study is impressive, while from the third to the fifth year of study there is a statistically significant increase in the indicators of mnemonic reflection and mnemonic reproduction; 4) the use of modern scientific developments in psycholinguistics as a branch of scientific knowledge can significantly contribute to understanding and describing the mechanisms of interaction of metamemory and verbal creativity in the process of human activity that leads the author to devote further scientific research to this problem.

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