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DETERMINANTS OF THE FUTURE TEACHERS' FORMATION OF PEDAGOGICAL THINKING DURING PROFESSIONAL TRAINING

The article is related to the analysis on the issue of the future teachers' pedagogical thinking formation during professional training. It is determined that cardinal changes in education make certain demands on the personality of a modern teacher and his competitiveness in the educational space, as well as on the training of the future teachers who are able to react quickly in different pedagogical process situations. The aim of the article is to define the determinants of formation of the future teachers' pedagogical thinking during professional training. The research methods were as follows: analysis of modern legal normative, methodological, psychological and pedagogical sources on the problem of the future teachers' training and systematization of scientific information on the content of phenomenon "pedagogical thinking". The forms of pedagogical thinking have been characterized as: visual-active, visual-imaginative and verbal-conceptual. In the course of theoretical and methodological analysis of the scientific fund it has been established that pedagogical thinking is characterized as the ability to consciously use pedagogical ideas, knowledge and skills in specific situations of professional activity; to recognize in certain phenomena of action the pedagogical essence aimed at further determining of the activity and volition for the individual's achievements in the future profession. Determinants of the formation of future teachers' pedagogical thinking during training are specified as a specific impact on applicants for higher education, which is based on subjective and objective factors on which their awareness of pedagogical reality depends, the relationships in it and their self-realization in future professional activities. Determinants of the future teachers' pedagogical thinking formation during professional training are defined as follows: future teachers' involvement in game modeling during training; the use of interactive teaching methods in the future teachers training; directive of future teachers for continuous self-development. The essence of the concept "self-development" and the content of the construct "interactive teaching methods", as well as their impact on the development of the future teachers' personal and professional qualities, are considered.

Key words: *pedagogical thinking, determinant, future teachers, game modeling, self-development, interactive teaching methods.*

The setting of the problem in general and its relation to important scientific or practical tasks. The proclamation of the National doctrine of education development, which is aimed at a new type of humanistic and innovative education, its competitiveness in the European and world educational space is related to the training of future teachers who are able to make personal choices, acquire skills, abilities and competencies for integration into society at different levels, also able to lifelong learning, etc. It results in reformational changes that make certain demands on the personality of a modern teacher, his / her professional qualities, which allow him / her to respond quickly in different situations of the pedagogical process. In this regard, firstly, the problem of forming a qualitatively new personality of the teacher is relevant for our country and is becoming one of the most important factors in increasing the competitiveness of the future professionals in the education field; secondly, the need for a comprehensive understanding of pedagogical thinking as a phenomenon of acceptance, awareness and understanding of pedagogical phenomena by future teachers is not in doubt.

Analysis of recent studies and publications. The analysis of the scientific fund of Ukraine proves that the problems of thinking in pedagogy are explored in different contexts. Among modern scientific studies the authors highlight such developments as: O. Akimova, 2010 (Theoretical and methodical bases

of forming the future teacher's creative thinking in the conditions of university education); I. Bilosevych, 2011 (Development of technical thinking in future teachers of technology in the process of studying special disciplines); T. Dyak, 2011 (Theoretical bases of pedagogical thinking formation in the coordinates of individual's self-determination); A. Zubryk, 2010 (Formation of productive pedagogical thinking of the future teachers of humanitarian disciplines); K. Kostyuchenko, 2011 (Pedagogical conditions for the formation of the future teachers' rational-critical thinking in the process of studying psychological and pedagogical disciplines); N. Mozgalyova, 2002 (Formation of musical thinking of the future music teacher in the process of instrumental training); L. Semenyuk-Ivanyuk, 2011 (Pedagogical conditions for the formation of synthetic thinking of pedagogical college students in the process of psychological and pedagogical training); O. Khoruzha, 2010 (Methodical bases of forming ethnopedagogical thinking of the future teacher of music), etc. Despite the extensive range of investigations on this construct, the abovementioned determinants of the future teachers' pedagogical thinking formation during their professional development are beyond doubt and can be the subject of scientific research, given the recent reforms in education.

Highlighting previously unsolved parts of the general problem. The training of the modern teacher must provide appropriate determinants for his / her professional development and correspond to the realities of today according to the reform of education. Despite the availability of scientific research on this problem, it is necessary to study the theoretical foundations of the pedagogical thinking formation. Of particular significance is the question of the importance of using interactive methods, game modeling and future teachers' directive for continuous self-development during the formation of their pedagogical thinking.

Formulating goals of the article and setting the task. The purpose of the article is to define the determinants of the formation of the future teachers' pedagogical thinking during training. To achieve this goal, the following research objectives were set: to specify the concept of "pedagogical thinking"; to characterize the determinants defining the formation of future teachers' pedagogical thinking during training.

Presentation of the main research material. On account of the outlined issues investigation, it was found out that during the formation of different contexts of the future teachers' thinking, the implementation of pedagogical conditions is generally accepted. As a rule, under pedagogical conditions the circumstances, opportunities, factors, the result of the educational process are understood. The scientific basis for this is represented by the following scientific studies: N. Borytko (2001) – an external circumstance that to some extent significantly affects the course of the pedagogical process, is consciously well-designed by the teacher, involves achieving a certain result; L. Horbatyuk (2002) – circumstances that operate in the educational process and affect both educational activities and learning outcomes; V. Pavlova (2007) – a combination of objective and subjective factors that positively affect the efficiency and effectiveness of educational process. However, in the context of our research we consider it necessary to emphasize the determinants during formation of the future teachers' pedagogical thinking [2].

Based on the scientific works of K. Abulkhanov-Slavskaya, V. Agapov, A. Derkach, O. Dubanesyuk, E. Karpova, A. Rean, K. Rogers and others, it was found out that the determinant in different contexts denotes a factor, precondition or condition. In the context of investigation, under the determinants of this phenomenon we will understand the specific impact on higher education applicants, which is based on subjective and objective factors on which their awareness of pedagogical reality depends, the relationships whithin and self-realization in future professional activities.

Thus, during theoretical and methodological analysis (H. Ball, V. Davydov, P. Halperin, I. Isayev, M. Kashapov, V. Krutetsky, I. Lerner, A. Matyushkin, M. Skatkin, V. Slastenin, H. Sukhobskaya, N. Talyzina, L. Friedman, etc.) it was established that pedagogical thinking is characterized as the ability to consciously use pedagogical ideas, knowledge and skills in specific situations of professional activity, the ability to see pedagogical essence in the certain phenomena of activity, which will henceforward determine person's activity and volition for achievements in the future profession [5].

Note that pedagogical thinking is characterized by visual-active, visual-imaginative and verbal-conceptual forms. Visual-active thinking is implemented by means of a real transformation of the situation, observation of a real motor act, event, action. Visual thinking functions through imaginary representation that must occur as a result of the subject's activity. Figurative thinking allows to present unusual, non-standard combinations of properties, connections and relationships. Verbal-conceptual thinking is implemented through logical operations with concepts. Depending on the areas of functioning and the type of tasks being solved the theoretical and practical pedagogical thinking are distinguished. Theoretical pedagogical thinking is aimed at discovering new laws, principles, rules of teaching and education. Practical pedagogical thinking functions in the process of activity, its main task is the transformation of reality [4].

Changing the philosophy of education requires the use of innovative technologies in the pedagogical

process, which affect not only the assimilation of educational material by future teachers, but also from the skills and abilities of their practical use in professional activities. Thus, the use of game modeling becomes important in the pedagogical process. Despite the sufficient number of psychological and pedagogical studies of game modeling: I. Pidlasy, H. Selevko, P. Shcherban and others (pedagogical grounds of using game in the educational process), B. Ananiev, I. Bekh, G. Kostyuk, K. Rogers, S. Rubinstein, L. Vygotsky, and others (psychological aspects of game), the question of considering its use during future teachers' pedagogical thinking formation remains open.

In the process of investigating the problem it was proved that game modeling helps to create a friendly psychological climate, helps future teachers to gain experience on enduring certain pedagogical phenomena, to form skills on future behavior in the collective, etc. (according to A. Budanov, O. Mudryk, L. Novikova, S. Polyakov, etc.).

It should be noted that mathematical, verbal-logical, structural-logical and game types of models and modeling itself have become widespread in modern pedagogy. In this context modeling in training is defined by means of: content, way of cognition, educational actions [9].

The analysis of the scientific fund (A. Panfilova, H. Selevko, H. Vashchenko, etc.) on this issue made it possible to establish that the games are classified on various indications. During professional training the future teachers are mostly interested in such types of games as: educational, upbringing, developmental, socializing, training, reproductive, productive, creative (by the nature of the organization of learning process); didactic, cognitive, intellectual, computer, travel-game, training (according to prepared rules); role-playing, business game, imitation, game-dramatization (according to the game methodics) [3]. Their use contributes to the following: assimilation of knowledge by future teachers and encouraging them to analyze, compare, systematize and generalize the pedagogical concepts, facts, theories, patterns, phenomena, specific situations, etc.; formation of the future teachers' ability to comprehend pedagogical phenomena, to allocate the main characteristic features in the latter; development of pedagogical capabilities; formation of professional skills, such as: ability to assess their feelings in a particular situation, students' mental state; ability to self-management and showing pedagogical tact; ability to choose the right action tactics in accordance with pedagogical tasks and pedagogical situations, etc.) [5].

The study of psychological and pedagogical literature on the future teachers training using interactive learning has allowed us to conclude that scientists interpret this concept differently and define it as follows: cooperative learning (collaborative learning): dialogue learning, in the process of which the interaction "teacher – student", "student – student", "student – group", etc. is performed (according to O. Pometun); as a special form of organizing the cognitive activity, which implies quite specific and predictable goals (according to N. Suvorova). Considering the subject of the study, the view of interactive learning, expressed by researcher S. Bondar, is appropriate, who understands it as a learning process that takes place only under the condition of constant, active interaction of all the participants. According to the author, it is mutual learning (such as group, collective, collaborative learning), when both the teacher and the student are equal subjects of learning; the organization of interactive learning is carried out by means of modeling life situations, use of role games, cooperative solving the problems on the basis of the corresponding situations; promotes the formation of communication skills, creating an atmosphere of cooperation; reveals teacher's and students' leadership traits, whereas no one dominates over the others, while the opinions of all the members of educational process are taken into account [1].

We shall notice, that for the effectiveness of any type of training the corresponding categories of didactics are used in practice. That makes it possible to take note on interactive methods when using interactive learning in the future teachers' training for professional activities. Interactive teaching methods involve such interaction in the learning process, which orients the individual to the development of his / her own creative abilities, to practicing the ability of choosing a situation; aim at activity stimulating resourcefulness. As for the essence of interactive teaching methods, we should focus on the mobilization of cognitive forces and aspirations of learners, on the awakening of individual interest in knowledge, on the formation of their own interests, on the ability to concentrate on the creative process, to enjoy creativity.

As rightly pointed out by O. Pometun, interactive teaching methods make it possible to involve learners in a set of educational and learning situations that are constantly updated and in which the full personal connection of higher education applicants to activities and communication is implemented, which activates the internal forces and thus promotes internal growth. The tasks of interactive teaching methods are: the development of intellectual skills (ability to form one's own position on socially significant events, ability to ascertain the situation, make decisions on controversial issues and defend this decision, which depends on the development of logical and critical thinking); development of communication skills (the ability to clearly and concisely formulate and present their position, interact in a group); assimilation of values (the respect for human rights and dignity, peaceful ways of resolving conflicts, cooperation;

tolerance; justice; openness; honesty; responsibility; persistence; respect for others and their own labour efforts); formation of a holistic view of the world; development of the ability to orientate in the environment [8].

Note that in philosophy the directive for self-development is considered as a spiritual and practical transformation in order to complete individual self-improvement. Whereas in psychology it is interpreted as a necessary condition for individual's self-realization. The investigation of self-development in pedagogy is aimed at finding opportunities, technologies of the education system impact on the individual's motivation to self-development, equipping them with self-development means, complex comprehensive support of self-development by pedagogical methods [10, p. 35].

Considering the scientific category "self-development" it was found out that the versatility of the study affects the ambiguity of its terminological figuration. The scientists define individual's self-development as: person's fundamental ability to become and be the subject of his / her life, to transform his / her own life into a subject of practical transformation (E. Isayev, V. Slobodchikov, 2000); purposeful process of "deployment" of existing already, but "rolled up" until the certain time inclinations, abilities, skills, qualities or "starting" and incipience of properties and qualities, which did not exist before (A. Derkach, 2006); a necessary condition for individual's self-realization, self-change of the subject in the direction of his Self-ideal, which occurs under the influence of external and internal causes (I. Bekh, 2003); the process of active, consistent, progressive and entirely irreversible qualitative change in the person's psychological status (H. Zhelezovskaya and O. Yeliseyeva, 1997); purposeful multifaceted self-change of personality, which serves the purpose of maximum spiritual and moral, activity-practical self-enrichment and self-development (K. Stetsiuk, 2013); individual's conscious, purposeful and controlled activity, the purpose of which is self-change in a positive direction, which provides personal growth, self-improvement (S. Kuzikova, 2011).

Regarding this, we are amenable to the study of H. Nazarenko, in which the author understands individual's self-development as an active purposeful activity to change oneself by their own efforts through this activity, resolving internal contradictions of their existence in a democratic space. As the scientist emphasizes, the process of self-development takes place in two forms – self-education (a specific type of internal activity of the subject, aimed at developing abilities, skills, qualities for its self-realization in a democratic environment) and self-improvement (the highest form of individual's self-development as a subject of democratic interaction, carried out in the moral coordinate system and requiring the use of a mechanism of reflection aimed at noises of their behavior, actions and deeds, feelings and abilities, as well as awareness of how it is perceived by interaction partners) [6, p. 99]. Thus we consider the abovementioned determinants to affect the future teachers' formation of pedagogical thinking during training.

The conclusions and prospects for further development. Based on the results of scientific fund analysis on the phenomenological feature of pedagogical thinking and taking into account the uniqueness of the content of update training in terms of its formation in future teachers, such determinants were identified as: future teachers' involvement in game modeling; use of interactive teaching methods in future teachers' training; future teachers' directive for continuous self-development.

The **prospects** for further research in this field will be to determine the methodological, theoretical and methodical coordinates of forming pedagogical thinking of the future teachers with different specialties.

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Гурін Р. С., Кушнірук А. С. Маматова З. Р. Детермінанти формування педагогічного мислення майбутніх учителів під час професійної підготовки

Статтю присвячено аналізу проблеми формування педагогічного мислення майбутніх учителів під час професійної підготовки. Визначено, що кардинальні зміни в освіті висувають певні вимоги як до особистості сучасного вчителя та його конкурентоздатності в освітньому просторі, так і до підготовки майбутніх учителів, які здатні швидко реагувати в різних ситуаціях педагогічного процесу. Метою статті є визначення детермінант формування педагогічного мислення майбутніх учителів під час професійної підготовки. Методами дослідження виступили: аналіз сучасних нормативно-правових, методичних, психолого-педагогічних джерел із проблеми підготовки майбутніх учителів і систематизація наукової інформації щодо змісту феномену «педагогічне мислення». Під час теоретико-методологічного аналізу наукового фонду встановлено, що педагогічне мислення характеризується як здатність усвідомлено використовувати педагогічні ідеї, знання та вміння в конкретних ситуаціях професійної діяльності, бачити в певних явищах діяльності педагогічну сутність, що надалі буде визначати активність і прагнення особистості до досягнень у майбутній професії. Детермінанти формування педагогічного мислення майбутніх учителів під час професійної підготовки конкретизовано як специфічний вплив на здобувачів вищої освіти, в основі якого є суб'єктивні та об'єктивні чинники, від яких залежить усвідомлення ними педагогічної дійсності, взаємозв'язків у ній і самореалізація їх у майбутній професійній діяльності. Визначено детермінанти формування педагогічного мислення майбутніх учителів під час професійної підготовки: залучення майбутніх учителів до ігрового моделювання під час навчання; використання інтерактивних методів навчання під час підготовки майбутніх учителів; настанова майбутніх учителів на безперервний саморозвиток. Розглянуто сутність поняття «саморозвиток» і змістове наповнення конструкту «інтерактивні методи навчання», а також їхній вплив на розвиток особистісних і професійних якостей майбутніх учителів.

Ключові слова: *педагогічне мислення, детермінант, майбутні вчителі, ігрове моделювання, саморозвиток, інтерактивні методи навчання.*