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FORMATION OF STUDENTS' EDUCATIONAL INDEPENDENCE DURING COGNITIVE ACTIVITIES

ФОРМУВАННЯ НАВЧАЛЬНОЇ САМОСТІЙНОСТІ УЧНІВ ПІД ЧАС КОГНІТИВНОЇ ДІЯЛЬНОСТІ

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ABSTRACT

The article is devoted to the problem of the forming of self-activity in the process of the forming of culture of logical thinking of the future specialists. It is underlined that self-activity is the ability of the person to organize own activity and to realize it with the aim of solution of new problems. It is proved that the self-activity is the one of the indexes of the formed culture of logical thinking. We distinguish three levels of educational independence in cognitive activity aimed at forming a reflexive position on the culture of logical thinking. The first level: reproductive (reproductive), in which the individual tries to learn new knowledge, perform the proposed tasks, provided there is a clear and understandable sample and tips of the teacher. The criterion for the formation of this level may be the desire of the individual to understand the object of study, in the performance of tasks. Indicators of this level are the ability to perform tasks on the model and the lack of need to analyze their own activities, its results. Second level: reconstructive, in which the individual seeks to understand the content of the object of study, its essence, to identify causal relationships. In addition, the individual tries to master the means of applying knowledge in a changed environment. The criterion for the formation of this level of independence is the presence of a desire to identify the cause of the phenomena, which is manifested in the question «why did I do it». The individual is able to apply knowledge in changed conditions. An indicator of the formation of the level is the ability to perform typical tasks even in the event of certain difficulties. At this level is the formation and achievement of cognitive independence (formation of fixed assets, techniques, skills – methods of cognitive activity and the ability to reproduce and choose to use) as a result of consolidating the mechanisms of complex transferences, conditions for reflexive position.

The third level is creative, in which the personality is characterized by a lasting interest and desire not only to understand the essence of the object of study, but also to find a new way to solve the problem, to analyze it. This level is characterized by the

desire of the individual to apply knowledge in a new situation, ie to transfer knowledge and means of activity in those conditions that were not yet known. Criteria for assessing the formation of this level is an independent search for a solution to the problem faced by the individual in the process of cognitive and practical activities, attempts to analyze their own activities, causes and consequences of its results.

Indicators of this level of independence are the solution of search and cognitive tasks, persistence in achieving the goal, identifying a clear reflective position of the individual.

Conclusions. Thus, independence during cognitive activity as an indicator of the formed reflective position is a generalized quality of personality, which is manifested in initiative, critical thinking, adequate self-esteem and a sense of responsibility for their own activities and actions. Prospects for further research. Our further research will be devoted to the identification of effective means of forming independence during cognitive activity, development of technologies for forming a clear reflective position of the student, which effectively influences the personality in the process of forming the culture of its logical thinking and is one of its indicators.

Key words:

Formulation of the problem. The rapid development of new information technologies, the transition of society to new forms of media communication (Internet, mobile communications, etc.) requires educational institutions to respond quickly to changes. The requirements of society to the teacher are reflected in demand of a high culture of logical thinking as an absolutely relevant and necessary quality of the teacher's personality.

The relevance of the study is that the independence and culture of thinking are necessary for a modern teacher who must be creative, active, proactive; who must not only analyze and summarize the professional material, but also be able to teach children to operate new, growing information. Therefore, the goal of our study is to determine the basic characteristics of the students' independence as the important feature of the future teacher.

As the object we determine the educational independence of educational and cognitive activities. Analysis of research and publications shows that the formation of the students' educational independence and logical thinking could be natural on the basis of the laws of development of thinking in general (D. Bogoyavlensky, L. Vygotsky, P. Halperin, V. Davidov, N. Menchinskaya, J. Ponomarev, S. Rubinstein etc.).

The formation of the students' independence is considered as a process of development of components of logical nature in thinking, which must be the basis of intellectual development of personality.

Various aspects of the formation of the students' educational independence were researched by national and foreign scientists. A significant contribution to the study of methodological problems of training future teachers was made by logicians and philosophers E. Voishvillo, D. Gorsky, O. Ivin, Y. Ivlev, N. Kondakov, Y. Petrov and others. Some scholars consider the problem of forming of the students' educational independence and their culture of logical thinking (A. Getmanov, V. Bryushinkin, Y. Petrov and others).

One of the consequences of a clear reflective position of the future teacher we consider the high independence of educational and cognitive activities of the future professionals. The problem of forming independence in the process of cognitive activity has been considered by many researchers: O. Leontiev, I. Lerner, N. Menchinskaya, P. Podkasisty, S. Rubinstein, T. Shamova, G. Shchukina and others.

Pedagogical encyclopedia defines independence as one of the qualities of personality, which is characterized by two factors: first, a set of tools – knowledge, skills and abilities that master the personality; secondly, the attitude of the individual to the process of activity, its results and conditions of existence. According to S. Rubinstein, independence is the conscious, the motivation of actions and their validity, invulnerability to external influences and the ability to act in accordance with their own personal beliefs. O. Leontiev defines independence as a personality trait that determines the choice and implementation of a certain way of solving problems. According to G. Shchukina, independence is an indicator of activity, the ability to search independently. N. Menchynska considers independence as a quality of mind, as a necessary condition for mental activity. Based on the studied research, it can be noted that defining the concept of independence, the authors come to a common opinion about its quality as the readiness of the individual to work and the active manifestation of this readiness.

The presence of this readiness is of great importance in the process of forming of the reflective position, through which students will distribute the acquired knowledge, independently determine the purpose of further work, adjust their educational path. During this process there will be an update of basic personal knowledge, comparison of basic information with new, mental search for possible ways to solve problems. Readiness for transformative activity can be formed only in the process of cognition and independent operation of knowledge and skills; therefore, it is necessary to form in the individual readiness for sustainable independent activity.

The term «independence» does not reveal the specifics of this quality in relation to the reflexive position on the formation of a culture of logical thinking. In accordance with this quality, we should expand this concept. We propose the term «educational independence of cognitive activity». This independence of cognitive activity involves the intellectual capacity of the student to discover the essence of new concepts and phenomena. During the educational process we must encourage the students' cognitive independence. This becomes possible due to the conscious logical thinking; ability to navigate new information; understand the task; find its optimal solution. After all, a high level of independence in performing tasks will provide a personal, deeper, conscious understanding of processes and phenomena, ie a reflexive position will be formed.

The importance of forming independence during the implementation of tasks, aimed at forming a culture of logical thinking is emphasized by the modern social demands. The students' independence is their ability of the individual to organize their own cognitive activity and carry it out to solve new

cognitive problems, «individual desire to organize in accordance with the task», which is an integral part of the motivational and reflective components of the culture of logical thinking.

T. Shamova emphasizes the same, emphasizing that the cognitive independence is a quality of personality, which is characterized by its desire and ability without outside help to master the knowledge and methods of activity, solve cognitive problems to further transform and improve the surrounding reality, consciously analyze their own activities and results of activities. Thus, independence during cognitive activity is a mental quality of a person who has an «activity nature and is of great importance in the conscious adult life of man», allowing to make decisions and analyze their own actions.

We adhere to the opinion of V. Tyurina, according to which educational independence in cognitive activities is focused on the possession of logical knowledge and skills is an integrative quality of personality, characterized by willingness (ability and desire) to see and decide on their own (based on willpower) new to her task. These data indicate that mastering logical skills as part of the culture of logical thinking is impossible without identifying independence during the cognitive activity of future professionals, because it is formed during cognitive activity and is its result. The essence of cognitive activity is that we are able to obtain new knowledge, to find the resolution of internal contradictions, which is the driving mechanism of cognition.

In the process of training of the future teacher, it is important to determine the level of independence during the cognitive activity of the individual. Levels of cognitive independence and stages of its formation were considered by: I. Lerner, P. Podkasisty, T. Shamova and others.

P. Podkasisty identifies 4 levels of development of independence during cognitive activity based on the analysis of the nature of cognitive activity and the ability to transfer skills in solving problems: reproductive, transformative, variable, creative – creative, where students formulate and solve problems. According to the author, the formation of cognitive independence is carried out under the conditions of independent cognitive activity by involving the individual in the system of independent types of work, which are different in nature. Thus, by constantly complicating independent work and reducing teacher assistance, we ensure the transition of the level of cognitive activity to a higher level.

Determining the levels of independence during cognitive activity, allows us to identify stages of its formation, which I. Lerner believes: consistent involvement of the individual in reproductive, part-search and creative activities to acquire knowledge, skills and experience of creative activity. The transition from one stage to another, says M. Danilov, is abrupt.

In the context of forming a reflexive position, we connect the implementation and formation of each of the stages and phenomena:

- the attitude (motivation) of the individual to learning, which is manifested in the interest in the content of knowledge acquired and the process of activity;

- the desire to reveal the essence of phenomena and their relationships, which should contribute to the intensification of cognitive activity;
- the degree of formation of knowledge and skills (content-procedural component);
- with the ability to consciously analyze their own mistakes.

In order to identify the level of formation of educational independence during cognitive activity we should be focused on the formation of a culture of logical thinking.

In pedagogical psychology and pedagogy, the sources of stimulating students' mental activity are still insufficiently developed. During the educational process, practical tasks are considered as a means of consolidating previously acquired knowledge, although they should stimulate logical thinking, develop the personality of future professionals. Some teachers throughout the educational process retain forms of organization of learning, which are typical only for the initial period of study, do not complicate the task. Quite often teachers set students tasks that do not sufficiently mobilize students' thinking, do not force them to work independently and analyze the results of their own activities.

We distinguish three levels of educational independence in cognitive activity aimed at forming a reflective position on the culture of logical thinking.

The first level: reproductive (reproductive), in which the individual tries to learn new knowledge, perform the proposed tasks, provided there is a clear and understandable sample and tips of the teacher. The criterion for the formation of this level may be the desire of the individual to understand the object of study, in the performance of tasks. Indicators of this level are the ability to perform tasks on the model and the lack of need to analyze their own activities, its results.

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АНОТАЦІЯ

Стаття присвячена проблемі формування освітньої самостійності навчально-пізнавальної діяльності у процесі підготовки майбутніх спеціалістів. Актуальність дослідження полягає у тому, вказана риса є необхідною для сучасного вчителя, творчому, активному, ініціативному, який має мислити нестандартно, не тільки аналізувати та узагальнювати професійний методичний матеріал, але й уміти навчати дітей орієнтуватись у обсязі новій інформації, що постійно зростає, тобто здійснювати позитивний вплив на

формування культури логічного мислення учнів, стимулювати їх до подальшого самостійного саморозвитку.

Тому метою дослідження є визначення базисних характеристик означеного новоутворення в особистості майбутнього учителя. Під об'єктом розуміємо самостійність навчально-пізнавальної діяльності.

Аналіз досліджень і публікацій свідчить про те, що складність процесу формування освітньої самостійності студентів, їхньої культури логічного мислення обумовлена тим, що для мислення є характерним багатоаспектність, різнобічність, розвиток причинно-наслідкових зв'язків. Важливість формування освітньої самостійності під час виконання завдань, орієнтованих на формування культури логічного мислення підкреслюється тим, що вона (самостійність) є спроможністю індивіда власними силами організувати свою пізнавальну діяльність та здійснювати її з метою розв'язання нових пізнавальних проблем, «прагненням особистості організувати свою діяльність у відповідності з поставленим завданням», що є невід'ємною частиною мотиваційного та рефлексивного компонентів культури логічного мислення.

Підкреслено, що освітня самостійність є спроможністю індивіда організувати свою діяльність та здійснювати її з метою розв'язання нових пізнавальних проблем. Доведено, що освітня самостійність є одним з показників сформованої культури логічного мислення майбутнього вчителя.

Ключові слова: культура логічного мислення, самостійність, пізнавальна діяльність.