

USE OF ACTIVE TEACHING METHODS
IN STUDENT-CENTERED EDUCATIONВИКОРИСТАННЯ АКТИВНИХ МЕТОДІВ НАВЧАННЯ
В УМОВАХ СТУДЕНТОЦЕНТРИЗМУ

The article is devoted to the problem of using active teaching methods in the conditions of student-centered education. It is determined that the use of student-centered approach is impossible without understanding the new vectors of interaction in the system "applicant for higher education – teacher". The aim of the article is to highlight the theoretical foundations of the active teaching methods application under the conditions of student-centered education. To implement the first task of the initiated research, the content of the concepts "student-centeredness" and "active teaching methods" were analyzed. Considering these concepts, it was established that student-centeredness is a complex, multifaceted phenomenon and process. The essence of the active teaching methods is interpreted by the scientists differently. The analysis of psychological and pedagogical literature made it possible to establish that depending on the directive of active teaching methods onto the knowledge system formation or mastery of skills, the scientists divide them into imitative and non-imitative. The pre-conditions influencing the selection of teaching methods are identified and analyzed. During the implementation of the second task, based on the methodological ideas of student-centeredness, it was established that the use of active methods in the future specialists training provides the implementation of its principles such as consciousness and activity, subjectivity and synergy.

The implementation of the third task was to test the effectiveness of the use of active teaching methods in the future specialists training for professional activities applying the chi-square. It was established that the use of active methods provides the effectiveness of the future specialists training, arouses and stimulates their interest in acquiring new knowledge, has a positive effect on attitudes to pedagogical problems in professional activities, and is a prerequisite for individual's self-development, self-organization and self-realization in professional activities.

Key words: student-centeredness, principle, active teaching methods, future specialists.

Статтю присвячено проблемі використання активних методів навчання в умо-

вах студентоцентризму. Визначено, що використання студентоцентрованого підходу неможливе без розуміння нових векторів взаємодії в системі «здобувач вищої освіти – викладач». Метою статті є викладення теоретичних основ використання активних методів навчання в умовах студентоцентризму. Для реалізації першого завдання започаткованого дослідження було проаналізовано змістовне наповнення понять «студентоцентризм» та «активні методи навчання». Під час розгляду понять визначено, що студентоцентризм є складним багатоплановим явищем і процесом, а сутність активних методів навчання вчені тлумачать по-різному. Аналіз психолого-педагогічної літератури дав можливість встановити, що залежно від спрямованості активних методів навчання на формування системи знань або опанування вмінь і навичок учені їх поділяють на імітаційні й неімітаційні. Виділено й проаналізовано передумови, які впливають на вибір методів навчання. Під час реалізації другого завдання з опором на методологічні ідеї студентоцентризму, було встановлено, що використання активних методів у процесі підготовки майбутніх фахівців забезпечує реалізацію таких його принципів: свідомості й активності, суб'єктності й синергетичності.

Реалізація третього завдання полягала в здійсненні перевірки ефективності використання активних методів навчання під час підготовки майбутніх фахівців до професійної діяльності з використанням хі-квадрату. Підкреслено, що використання активних методів забезпечує результативність у навчанні майбутніх фахівців, викликає та підтримує інтерес до набуття нових знань, позитивно впливає на розв'язання проблемних ситуацій у майбутній професійній діяльності, а також виступає передумовою для саморозвитку, самоорганізації та самореалізації особистості в професійній діяльності.

Ключові слова: студентоцентризм, принцип, активні методи навчання, майбутні фахівці.

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Statement of the problem in general.

Modernization of the professional education system in higher school consists in creating a developmental pedagogical system based on the active use of innovations and innovative technologies in the educational environment and allows to achieve the necessary quality of the future specialists training. Innovative technologies in the future specialists training are aimed at improving the efficiency of the educational system and its entry into a qualitatively new level of functioning and should be based on understanding of the essence of psychological and pedagogical training at the higher educational institutions as a system, process, activity and

result – training of socially active, competent specialists with the developed professional skills, able to act creatively in accordance with the professional objectives [4]. On the other hand, the implementation of a student-centered approach is impossible without understanding the new vectors of interaction in the system "higher education applicant – teacher" and its features as an innovation in the educational process organizing in higher education. Whereas the analysis of work programs of theoretical and practical training of the future specialists revealed a number of contradictions between: the need for purposeful training of the future specialists to the use of the active teaching methods and, on the other side,

insufficiency of their use in pedagogical process; the need to improve the quality of the organization of such training and the lack of appropriate educational and methodological providing for this process. This encourages a deeper analysis of the problems of using active teaching methods in a student-centered environment.

Analysis of recent research and publications.

Psychological and pedagogical aspects of the higher education applicants training for professional activity in educational institutions were considered by such scientists as: S. Arkhangelsky, I. Bekh, I. Bogdanova, E. Karpova, R. Khmelyuk, N. Kichuk, N. Kuzmina, O. Leontiev, A. Markov, N. Mitina, I. Pidlasy, V. Slastyonin, M. Smetansky, M. Yevtukh, I. Zyazyun, etc. Different approaches to the definition of teaching methods and relevant classifications are covered in the research of Yu. Babansky, M. Danilov, M. Kasyanenko, A. Khutorsky, L. Klinberg, I. Lerner, M. Makhmutov, V. Onyschuk, P. Podkasisty, M. Skatkin, B. Yesipov, etc. S. Mukhina, S. Podgornov, O. Pometun, S. Smirnov, A. Solovyova and others devoted their works to the application of the active methods in the educational process. Despite the abovementioned scientific achievements, the problem of using active methods in student-centered conditions is currently insufficiently studied and remains open, which also testifies to the relevance of the research initiated.

Highlighting of previously unresolved parts of the general problem. The training of a high-class specialist implies appropriate conditions for his / her professional development and meets the realities of today, which are associated with rethinking and reforming of the educational process of higher education. Despite the availability of scientific investigations on the research subject the study of theoretical foundations of the use of active teaching methods in preparing future specialists for professional activities is required. Of particular importance is the question of their use in a student-centered environment.

The aim of the article is to highlight theoretical foundations of the use of active teaching methods in a student-centered environment. To achieve this goal, the following research objectives were set: to clarify the concepts “student-centeredness” and “active teaching methods”; to determine the interconnection between implementing the principles of student-centeredness and the use of active teaching methods; to review the effectiveness of the use of active teaching methods in the future specialists training for professional activities.

Presenting main material. The content of the student-centered education, student-centered approach, principles of the student-centeredness, student-centeredness in particular is the subject of investigations of many foreign and domestic scholars (V. Barnes, D. Brandes, P. Brandis, P. Ginnis,

N. Sinelnikova, N. Sosnytska, D. Stephenson, J. Troy, O. Zablocka, etc.).

Considering the subject of the research initiated, we consider it necessary to emphasize that student-centeredness meets the requirements and demands of modern society, which needs competent, creative, proactive professionals. A characteristic feature of student-centeredness, as the idea of human-centeredness, is the indurement to implement an approach in which the integrity of the human's inner world provides interconnection between an individual and the society. On the other hand, student-centeredness is a complex, multifaceted phenomenon and process. The complex characteristics of this phenomenon must take into account at least four circumstances:

1) the active response of the educational environment to the changing needs of the labor market;

2) the model of the development of education, where the student having been the object becomes the subject of educational activity, i.e. an active participant in the scientific and educational process;

3) concentration of the efforts on taking into account individual qualities, abilities, on the formation of individual educational trajectories and, accordingly, the individual profile of competencies;

4) a new level of responsibility for creating conditions in which the output is high learning outcomes and the update competencies [5].

Note that the pedagogical meaning of the student-centric direction of scientific and educational activities involves the creation of all conditions at the institution of higher education for the development of the future specialists' personal and professional qualities necessary for successful professional activity. The implementation of this principle in educational programs involves the use of active teaching methods in the future specialists training.

The scientific literature review revealed that scientists have different interpretations of the active learning methods essence and determine it in such ways as: methods that implement the directive for greater activity of the subject in the learning process, as opposed to traditional approaches (according to S. Smirnov); the way of organizing the educational process, which provides learners' forced, evaluative and managerial activity, compared with the teacher's activity (according to S. Mukhina); teaching methods that provide intensive development of cognitive motives, interest, encouraging the manifestation of creative abilities in learning (according to S. Podgornov). The tasks of active teaching methods are: to encourage the future specialists to solve educational problems, to form in each individual the qualities of a certain profession representative by providing its harmonious development, etc. [1]. However, the analysis of psychological and

pedagogical literature made it possible to establish that according to the dependence of the active learning methods directive onto the formation of knowledge or mastering skills, they are divided into imitative and non-imitative, see Picture 1.

As we can see from Picture 1, the future specialists have to understand the essence and content of active teaching methods; to form the necessary competencies during training using the active teaching methods; to acquire knowledge and skills on their application in the educational process in the aspect of the future professional activity.

Based on the theoretical analysis of scientific psychological and pedagogical literature (A. Kuzminsky, N. Moiseyuk, V. Omelyanenko, N. Yaksa, etc.) the expedience of considering the problem of choosing teaching methods was determined. This became the basis for identifying the prerequisites that predetermine the selecting of teaching methods, which is presented in Picture 2.

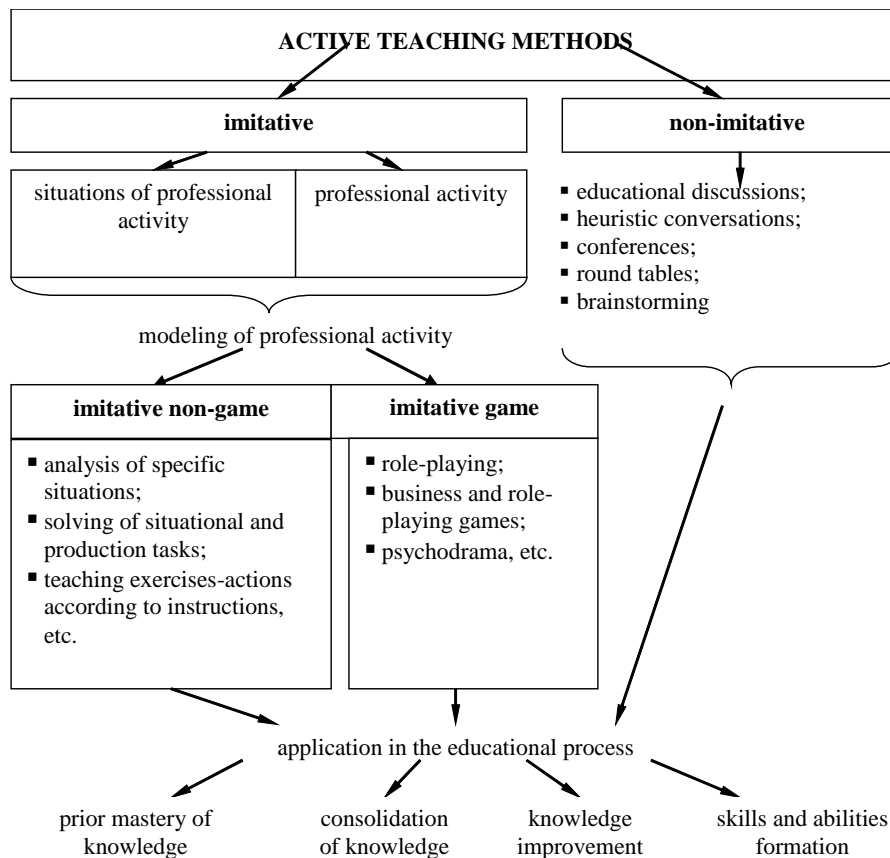
As we can see from Picture 2, the future specialists must understand not only the role of the creative process in terms of learning, but also the essence of the selection of methods for organizing professional activities.

If we refer to the literature sources, describing the selection of teaching methods, we can conclude that almost every author suggests his own attitude

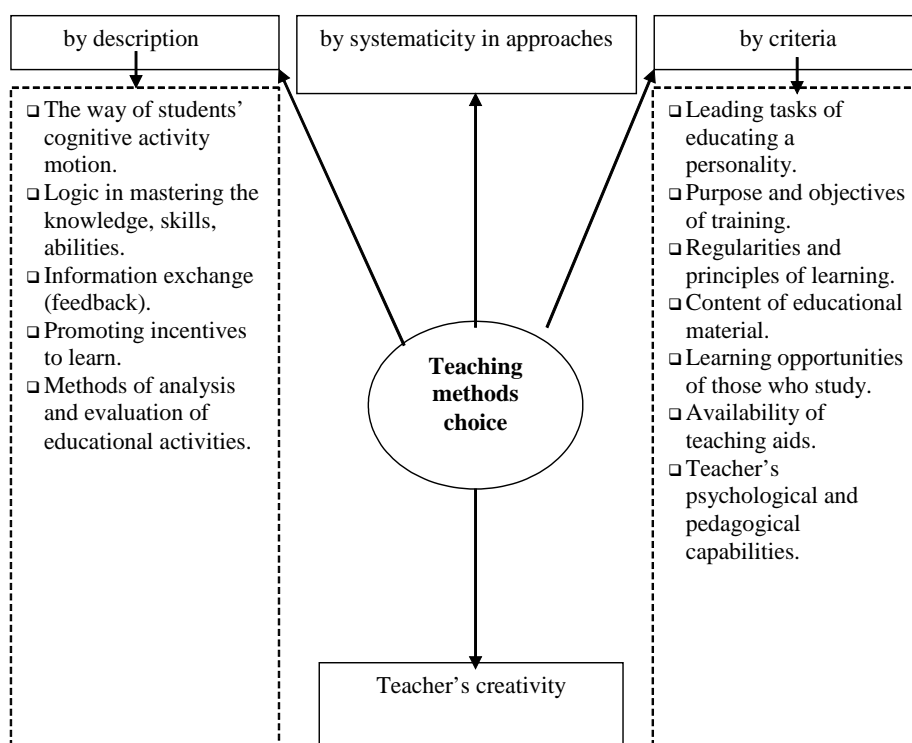
on such activities. Thus, N. Moiseyuk identifies six general conditions that determine the choice of teaching method, namely:

- 1) patterns and principles of teaching;
- 2) the content and methods of a certain science in general and the subject in particular;
- 3) goals and objectives of training;
- 4) students' learning opportunities;
- 5) external conditions;
- 6) teachers' possibilities [3].

N. Yaksa considers that the choice of teaching methods is influenced by didactic and methodological knowledge, as well as the following approaches, such as: stereotypical (habitual); intuitive (through attempts and mistakes); optimal solution (through the use of scientific knowledge) [6]. Based on the above mentioned, we conclude that the use of active methods in the future specialists training provides the implementation of the principles of student-centeredness, such as: consciousness and activity, subjectivity and synergy. Thus, the principle of consciousness and activity is based on the awareness of priorities and future specialists' active self-management. It reflects the active role of the higher education applicant personality in the acquiring of knowledge gained through intense mental activity. This principle is implemented through independent cognitive activity, i.e. a system of individual cognitive



Picture 1. Characteristics of active learning methods



Picture 2. The selection of teaching methods according to A. Kuzminsky and V. Omelyanenko

actions aimed at achieving a certain pedagogical goal that can be implemented through the development of higher education students' own arsenal of self-management methods and their continuous application, which significantly improves learning outcomes.

The next principle of subjectivity presupposes the position of one's own life creator, who consciously sets goals for self-realization and self-improvement, determines his / her problems and prospects, manages his / her own self-development. The success of the formation of the activity subject will depend on:

1) the adequacy of the subject's reflection of the object's activity, i.e. the fact that the subject is trying to learn and transform in the surrounding world;

2) subject' professional suitability (will be determined by the nature of individual's professional motivation, its orientation, interests, attitudes, etc.);

3) development of the subject's own ways of solving typical life and crisis problems, ideas about their place in life, systems of self-esteem and self-improvement.

The last principle of synergy consists in strengthening the importance of all structural elements of student-centered learning, is based on students' independence, responsibility, purposefulness and efficiency and, as a result, promotes future professionals' conscious self-improvement [2; 5].

To achieve the last task of the goal set, a test on the effectiveness of the active teaching methods

use in the future specialists (teachers) training was conducted, which resulted in a study (in the first semester of 2021–2022 academic year), aiming to respond: "Do future physical education teachers need to study and use active methods both in their studies and in their professional activities?" For this purpose a sample survey was conducted with the respondents of the 1st and 2nd years of study at the first educational level at the Institute of Physical Culture, Sports and Rehabilitation of the State Institution "South Ukrainian National Pedagogical University named after K.D. Ushynsky": 38 respondents of specialty 014 "Secondary education (Physical education)" and 36 respondents of specialty 017 "Secondary education (Physical culture and sports)". The results of the survey according to the specialties were different. Chi-square was used for the effectiveness of the study. The hypothesis of the study was the lack of distinctions between the two empirical distributions. To validate the empirical value of the chi-square, the following formula was used:

$$\chi_{emp}^2 = \frac{N \cdot (|A \cdot D - B \cdot C| - N/2)^2}{(A+B) \cdot (A+C) \cdot (C+D) \cdot (B+D)}$$

After calculating it was received: $\chi_{emp}^2 = 3,45$. Thus, a positive attitude to the use of active teaching methods is statistically significant for graduates of both specialties, regardless of their number.

Summing up, we **conclude** that the use of active methods provides the effectiveness of the future specialists' training, arouses and stimulates their

interest in acquiring new knowledge, has a positive effect on attitudes to solving problem situations in professional activities. The prospects for further research are seen in considering the factors that have a negative impact on the future specialists' willpower for using active teaching methods in professional activities.

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