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DEVELOPING STUDENTS' SKILLS INTO PEDAGOGICAL IMPROVISATION USING DIDACTIC GAMES

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The aim of the study is to reveal ways in which to apply didactic games to the process of specialists' mastering improvisation skills and problem-solving in professional pedagogical activity. Pedagogical improvisation encompasses the whole range of knowledge, abilities and skills the future teacher, may require to solve unplanned situations. However, the ability to make quick and expedient pedagogical decisions contributes to effective implementation, as this involves instantaneity, extraordinary thinking and, most importantly, the effective final version. The research aim is formulated with the help of various scientific methods: 1) theoretical – theoretical and critical analysis of philosophical, psychological, pedagogical and methodical literature, comparison, systematization, generalization of the obtained information;

2) empirical – questionnaires, conversations, interviews, expert evaluation, independent evaluation, observation, pedagogical experiment; 3) statistical – mathematical methods for processing experimental data. The educational effect of pedagogical improvisation is achieved due to such teaching methods as didactic games, which are primarily related to two particulars of studying: problemativeness and acquisition of study material through action. In order to ensure the development of future specialists' skills of pedagogical improvisation, a pilot study was conducted, involving second-year students of the Ukrainian Studies Department of Pirogov National Medical University and of the Foreign Languages Department of Pavlo Tychyna Uman State Pedagogical University. The number of students measuring a high level of development in pedagogical improvisation increased by 12.3 %, with the average level increasing by 19.7 %. Of particular note, the number of students with low levels decreased by 32.0 %, due to educational didactic games. It was proven that these games ensured the students' high activity in educational activities and encouraged them to develop their skills and responsible attitude towards their collective responsibilities in solving pedagogical problems situations.

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ФОРМУВАННЯ У СТУДЕНТІВ ДОСВІДУ ПЕДАГОГІЧНОЇ ІМПРОВІЗАЦІЇ ЗАСОБАМИ ДИДАКТИЧНОЇ ГРИ

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Мета статті полягає в розкритті можливостей застосування дидактичної гри у оволодінні майбутніми вчителями медичного вузу вмінням імпровізації та оперативного прийняття педагогічно доцільного рішення. Педагогічна імпровізація охоплює цілий спектр знань, умінь і навичок педагога, необхідних йому для вирішення незапланованих ситуацій, однак уміння оперативно приймати педагогічно доцільне рішення сприяє її успішній реалізації, оскільки передбачає миттєвість, неординарність рішення і головне – його ефективний кінцевий варіант. Мета дослідження була досягнута за допомогою наукових методів: теоретичних – теоретичний та критичний аналіз філософської, психологічної, педагогічної та методичної літератури, порівняння, систематизація, узагальнення отриманої інформації; емпіричні – анкети, бесіди, інтерв'ю, експертна оцінка, незалежна оцінка, спостереження, педагогічний експеримент; статистико-математичні методи обробки експериментальних даних. Освітньо-виховний ефект педагогічної імпровізації досягається за рахунок такого методу навчання, як дидактичні ігри, які пов'язані, насамперед, із двома особливостями навчання: проблемністю та засвоєнням навчальної інформації через дію. З метою встановлення сформованості у майбутніх учителів умінь педагогічної імпровізації нами було проведено пілотажне дослідження, в якому брали участь студенти II курсу факультету іноземних мов (67 осіб) Уманського державного педагогічного університету імені Павла Тичини. Використання викладачами розроблених дидактичних ігор сприяло підвищенню рівня сформованості умінь у майбутніх учителів до педагогічної імпровізації, оперативно приймати педагогічно доцільне рішення непередбачених ситуацій. Так, на 12,3 % зросла кількість студентів із високим рівнем, на 19,7% – середнім рівнем сформованості умінь цього виду педагогічної діяльності. Зниженню відсотка студентів, які перебували на низькому рівні, найефективніше посприяла розвивальна дидактична гра, яка забезпечила прояв у студентів експериментальної групи високої активності в навчальній діяльності, інтенсивної роботи над розвитком своїх здібностей, відповідального ставлення до своїх колективних обов'язків під час вирішення педагогічних ситуацій.

Ключові слова: педагогічна імпровізація, дидактична гра, педагогічна діяльність, пілотажний аналіз, експеримент, студент, університет.

Introduction. A quite topical issue within higher education pedagogy remains the problem of developing the professional competency of future specialists. Over time, requirements for each profession vary in accordance with the needs of society, and therefore higher education institutions should constantly improve education quality, as well as the level of their students' professional skills.

Teachers deal with unpredictable situations quite often during the

education process, which requires them to frequently apply improvisation skills. Pedagogical improvisation is a complex process, which requires the teacher to make quick and smart decisions during unforeseen circumstances. The teacher must effectively manage and resolve conflict situations in the education process, thus allowing for the creation of favourable conditions for teaching and learning, including identifying and demonstrating one's erudition, creative

potential, intelligence, pedagogical mastery, etc.

Improvisation is one of the most complex scientific problems. Its psychological principles were studied by B. Romenets, B. Runin, I. Strakhov et al. Improvisation as one of the manifestations of creativity was considered by I. Bryl, T. Didenko, T. Dzhanizade, G. Kahanovych, V. Khazan, S. Maltsev, A. Nazarov, A. Nikitin, V. Nikitin, A. Petrov, L. Saburova, V. Terskoi et al. The role and place of improvisation in pedagogical activity were determined by O. Bashkir, S. Dezzutter, T. Dutkevich, V. Kharkin, A. Khutorskoi, C. Lajoie, J.-F. Maheux, K. Stanislavskyi, V. Zagviazytskyi et al.

Modern scholars O. Bashkir, O. Ben-Horin, S. Dezzutter, R. Donmoyer, I. Levin, V. Kaplinskyi et al., emphasize the teachers' ability to study material creatively, to find optimal methods of teaching and learning, to improvise and create variational images so that social experience may be acquired based on profound knowledge of study material, pedagogical speech culture, personal qualities, etc [1-6].

Pedagogical improvisation encompasses the whole range of knowledge, abilities and skills the teacher may require to solve unplanned situations. However, the ability to make quick and expedient pedagogical decisions contributes to effective implementation, as it involves instantaneousness, extraordinary thinking and, most importantly, the effective final version.

Aim and Tasks. The paper aims to reveal the ways in which to apply didactic games to the process of teachers' mastering improvisation skills and problem-solving in pedagogical activity.

Objectives of the study are as follows:

1) to identify and describe the particulars of pedagogical improvisation;

2) to characterize applying didactic games to the process of teachers' mastering improvisation skills and conduct a pilot study of the level of development of future teachers' skills in pedagogical improvisation with the help of selected diagnostic methods.

Research Methods.

While conducting researching the following methods were used:

- **theoretical** – theoretical and critical analysis of philosophical, psychological, pedagogical and methodical literature; comparison, systematization, generalization of the obtained information

- **empirical** – questionnaires, conversations, interviews, expert evaluation, independent evaluation, observation, pedagogical experiment

- **statistical** – mathematical methods for processing experimental data

Research Results. Teaching communities repeatedly raise the issue of conducting seminars and practical classes according to established methods and practices, which render it impossible to utilise a creative approach when choosing various ways, methods, and techniques, or even modifying a lesson plan. In order to effectively prepare future specialists of medical and pedagogical institutions for pedagogical improvisation, it is imperative to use interactive forms of instruction and didactic games to best meet the above-mentioned requirements.

Student years at university are the beginning of a great and complicated path to teaching. Therefore, the comprehensive training of students for future professional activities involves not only the acquisition of certain knowledge and methodology of its transmission, but also development of a young specialist, who should possess

a range of skills that go beyond the limits of teaching their subject.

The current education system provides teachers with great opportunities to choose concepts, options, approaches, creative teaching methods and techniques. On the one hand, this requires future specialists to be responsible, and on the other hand, promotes unlimited imagination and improvisation.

When choosing a logical, relevant and, most importantly, effective way to solve the problem, the teacher must rely on their subject knowledge and awareness of self, as well as the children's team and each individual, taking into account their own experience and intuition [1]. Choosing the right way to solve the problem requires the teacher to have extraordinary skills, since the ability to choose is the most valuable property of the mind.

Based on the word etymology, most sources indicate that improvisation means a sudden creative impulse. The phenomenon of pedagogical improvisation has been inherent in the education process since the appearance of the traditional classroom system. While conducting research, several definitions of the phenomenon under consideration have been clarified, which consists of the teacher's ability to realize the significance of the newly created pedagogical situation or situation doctor-patient, its immediate analysis and public implementation, and the appropriateness of the decision. There are different approaches to defining the essence of pedagogical improvisation; however they are characterized by a common feature, namely, an unexpected emergence of the situation and an instant solution to it.

It is known that improvisation, as a rule, manifests itself in verbal, physical or verbal-physical actions. A verbal action in pedagogical improvisation may appear as a monologue, dialogue,

polylogue, phrases, or replicas. It is quite rare for physical activity to occur in pedagogical improvisation. Most frequently, one can come across it in gestures, facial expressions and looks. Verbal-physical actions are widely used in pedagogical improvisation.

Considering the role of pedagogical improvisation in teaching, V. Kharkin notes that depending on the conditions within the education process it (pedagogical improvisation) acts as a technique, a methodological tool for teaching and learning [7]. Pedagogical improvisation is a component of pedagogical creativity.

Student's educational passivity or activity can serve as an impulse for pedagogical improvisation. Depending on the situation, the teacher reacts differently (improvisation is a reaction to something).

In this regard, pedagogical universities must develop future teachers' skills in professional improvisation. Pedagogical improvisation performs the following functions: *organizational* (activating knowledge acquired by students), *stimulating* (encouraging students to improvise and search for original ways of improvisation realization), *communicative* (using an arsenal of communicative means to establish favourable communication) and *regulatory* (orienting pedagogical interaction towards positive results).

Based on an analysis of scientific and pedagogical literature [2; 7; 10], one can distinguish the following stages of pedagogical improvisation: an instant comprehension of the idea, its public realization, and analysis of the results on pedagogical improvisation implementation.

Thus, pedagogical improvisation is necessarily characterized by pedagogically significant outcomes; combines formalized, regulated activity with creativity and acts as an indicator of quality of the interaction between

stereotyped and improvised actions; is of a public nature; requires the teacher to apply verbal and non-verbal means of communication, which provide a vivid expressiveness of thought, logic of utterance and effectiveness of persuasion. The educational effect of pedagogical improvisation is also achieved due to general culture, pedagogical attention, imagination, inspiration, intuition and taking into account specificity of teachers' skills in pedagogical improvisation.

In modern teaching methodology, there is a transition from learning facts to mastering the meaning of events, developing a worldview, and acquiring skills necessary to apply accumulated knowledge in life. This is possible by using such teaching methods as didactic games, which are primarily related to two particulars of studying: problemat�icity and acquisition of study material through action. Problemat�icity is realized through students' independent problem solving despite a lack of necessary knowledge, when they must independently master new content or find new connections between already acquired information. During such activities, new skills are developed and thus learning is realized through action.

There are various types of didactic games, however their basic feature is a game element. Thus, G. Shchedrovitskii, S. Kotelnikov, M. C. Buzzi, M. Buzzi, and E. Perrone believed that society invented games in order to manage an individual's development: in this regard, it is a special pedagogical creation [4]. During a game, a certain element of culture (plot) is revealed (that is a form of cultural transmission, for example, a method of activity), which, during the individual's development and verification of this activity, is filled with personal content that forms the basis for the professional training of specialists. Thus, a sample of activity

(model) is passed from generation to generation and learning through playing ensures "cultivation" of new methods of activity according to the given general forms.

Considering the fact that the subject of the game is human activity, we believe that games organized for learning can be called didactic. While interpreting the essence of the game, O. Khomenko indicates that a didactic game is an active educational activity aimed at modeling the systems, phenomena, and processes that are being studied. Therefore, the main activity is educational activity, which intertwines in game activity and acquires the features of common educational games [8: 12].

Depending on the aim, objectives and the stage of application, games are classified into educational (reproductive, cognitive and developmental, creative, summarizing, controlling) and training (aimed at developing and practicing necessary skills and abilities), including diagnostic, communicative, sociopsychological and reflexive.

One type of didactic games is the professional game, which is understood as a reproduction of the subject and social content of professional activity and the modeling of relationships inherent in this kind of professional activity. The professional game is a collective, purposeful activity of students directed at mastering academic subjects or sections with the help of special professional simulation modeling. Thus, each participant performs a role or action, similar to behavioural patterns of people in their life, taking into account the game rules. Such games are used as a means of interactive instruction, cognition of behavioural norms, and acquisition of the decision-making processes.

Consequently, those games specially organized by the teacher in order to solve educational problems are

called didactic. Didactic game can be both role-playing or have some rules that effectively influence practical training for future professional activity, where pedagogical improvisation is encountered quite often and requires an immediate reaction from the teacher.

In order to ensure development of future teaching skills in pedagogical improvisation, a pilot study was conducted, which involved 67 second-year students of the Foreign Languages Department. The following diagnostic methods were selected: observation, interviews, questionnaires, testing, and independent evaluation including self-evaluation, teacher-peer evaluation and peer-peer evaluation. As a result, each student was evaluated from three differing perspectives utilising a five-point scale.

The obtained data indicates that students slightly overestimate their professional qualities. Their self-evaluation does not coincide with their teachers' evaluation, and the difference between self-evaluation and their peers' evaluation is minimal or absent. It has been found that the degree of self-evaluation accuracy depends to a certain extent on how the student understands the essential aspect of professional qualities. The minimum divergence between student and teacher evaluations is present when the student adequately understands the essence of quality. The difference in average indicators for these skills is only 0.1–0.3 points.

Based on the study, the levels of development of students' skills in pedagogical improvisation were determined as either high, average or low. A high level (11.3% of students) is characterized by highly developed communicative and professionally significant qualities: creativity, flexibility of thinking, intuition, and imagination. Students who have achieved such a level instantly react to

the newly created pedagogical problems, evaluate them and make extraordinary decisions; they apply the humanistic approach to resolve conflicts and strive for self-development.

An average level (25.6 % of students) is characterized by the fact that students are not always willing to improve their skills in improvisation. Such students have poor communication skills, lack creativity, are often unwilling to deviate from the lesson plan, proving their inflexible thinking. Decision-making is rather slow, since students react instantly only under special conditions, as well as adhere to their intuition. As a result, they are not able to achieve their goals.

64.1% of students tested at a low level, meaning they are unable to independently improve their skills in improvisation or to deal with problem situations. These students are not fully aware of their significance, and as such, their professional activity is not humanistically oriented, they lack creativity to solve educational tasks, flexible thinking and intuitive understanding of unforeseen situations.

Thus, the obtained results have revealed an inadequate level of development of students' skills in pedagogical improvisation. In order to further develop these skills, it was specified that special training should orient students towards making correct pedagogical decisions and developing their skills in improvisation. In the experimental group (EG), which included 29 participants, didactic games were incorporated into the training, whereas in the control group (CG) with 28 participants, they were not.

Didactic games were implemented into the pedagogy course as one of the methods of active learning and were organized as a student joint activity. Cooperation was ensured due to interaction, as there was a transition

from maximum teacher involvement in solving educational problems to a gradual increase in students' participation in self-regulating actions: the emergence of partnership between the student and the teacher. In the education process, an educational problem was considered to be the core of the game, since the need to solve it activated intellectual activity and contributed to developing the individual's intellectual skills. The participants analyzed and summarized information, as well as selecting and mastering necessary abilities and skills.

The process of developing skills in improvisation and effective decision making allowed for the utilization of the following didactic games:

1. *Educational game – the game programme is presented in several types of educational games (role-playing and symbolic). It broadens students' horizons, stimulates their cognitive interest, develops various skills in improvisation and promotes psychophysical development.*

One example is the game called "On a Creative Wave". The aim of the game is to develop students' ability to take into account opposing ideas from different fields, to use existing associations to solve creative tasks, to develop their ability to comprehend their peers' views, to think globally, to solve logic tasks, and to create problematic and nonprescriptive environment required to solve problems independently.

The resources utilised included pencils, markers, pieces of colored cloth, ropes, dried branches, etc.

The organization of the game is as follows: Based on their creative skills and abilities, players were divided into subgroups (4–6 players) and performed a series of individual and collective tasks.

The content of the game programme is as follows:

1. The teacher justifies importance of expanding creative field and the role of associative thinking in the process of enhancing creativity.

2. The team is divided into subgroups and their captains are chosen.

3. The team name should be a fairy-tale character; players should justify their choice (5 min, 3 points).

4. Players should write down some topical issues on a card (for instance, improving school lessons).

When the teacher gives the signal, players pass the card to the group sitting to their right. They have 10 minutes to discuss it. After that, the group or its representative should state why the problem is topical, how it can be solved and outline the results (15–17 min, 6 points).

5. Players should justify how the sun and human mood, rain and stress, autumn and character, a man and coffee, medicine and the Internet can be connected.

This task can be performed in groups or individually (3 min, 4 points).

6. Players should paraphrase the following words as close to the original text as possible: 1) "Who feels the power to do better, he has no fear of admitting his mistake (5-7 min, 5 points) , 2)"To be a man among men" (3-5 min, 3-4 points), 3) "I swear to learn all my life" (5-7 min, 3 points), 4) "Who has not studied man in himself, never will not reach deep knowledge of people" (5-7 min, 5 points).

7. Players should invent as many options as possible for indirect use of such items as "it is enough to look well, and on the person of the person it is possible to learn his nationality, on hands – profession, and all the last – for March of him" (in groups or individually; 5-7 min, 6 points).

8. One should convince the interlocutor from the team on the left that:

1) who owns the word "Physician must possess the eye of a Falcon, the hands girls the wisdom of the serpent and heart of a lion";

2) who owns the words "Hurry up to do good!";

3) who owns the word for the spiritual intellectual qualities such as compassion and kindness, then these traits should be considered laws of the profession. (5 min, 4 points).

9. One should imagine oneself to be an owner of: 1) ecology system;

2) responsible for the science of medical activity using the achievements of scientific and technical progress ; 3) responsible for the Insufficient level of culture of a physician.

For 10 minutes, players should think and then explain to other contestants why this item is so important to them, what they are going to do with it, why they need it at the very moment (in groups or individually; 6 points).

Players should verbally describe such phenomena. The description should be logical, vivid, clear and emotional.

10. Do you remember such fairy-tale characters as Doctor in the House by R. Gordon?

The team is given 20 minutes to create their fairy-tale character, namely, an animal that would have body parts and / or some qualities of other creatures. Players should name it, imagine its appearance, voice, gait, etc. After that, they should present their newly created character on an improvised stage individually or in groups (8 points) [10: 51].

2. *Intellectual game – content, methodology and rules are aimed at developing students' cognitive activity. These games were used to develop students' positive attitude towards the research topic, to strengthen their knowledge of improvisation, and to develop their skills in pedagogical improvisation and self-regulation.*

An example is the game "Three moves". The aim of the game is to develop students' logical thinking, creativity, experience in game situations, and to eliminate their fear of the unknown or problems that may arise.

The course of the game. This game is performed in pairs. Each player prepares for their partner three specific moves, which are as logically related to each other as possible. One cannot suggest, for instance, the following three: to wake up, to dress, to brush one's teeth. On the contrary, each of the suggested actions should not be related to another based on the content, namely, to tie one's shoelaces, to swim, to knead dough.

Players are given up to 7 minutes to devise how to combine the suggested moves into a narrative. Players may not change the order of moves.

Thus, players are encouraged to use their imagination to justify the chain of actions and minimize all additional moves that are required to proceed to the next tasks.

The completion of the game: the course of the game and its outcomes are discussed.

3. *Business game – aimed at developing future specialists' skills in pedagogical improvisation within the framework of a specific lesson topic, specific study material, new study material, electives, and educational work with students of all ages, when the teacher involved in the experiment should become an example for their students and demonstrate improvisation.*

For instance, the business game aimed at developing future teachers' ability to create a problem situation while studying a specific topic within their subject.

Both teachers and students choose a specific topic of the lesson depending on their future specialization.

Participants are divided into the following groups:

a) students – "teachers" (3–4);

- b) students – "students" (12–13);
- c) students – "experts" (2–3)
- d) doctor – patient (5-7).

Teachers' group:

Imagine that you teach seventh grade and the aim of the lesson is acquisition of new knowledge. The subject of the lesson is not directly related to the study material you dealt with before. You need to create a problem situation, to involve all "students" in its analysis, to help them identify the problem and solve it.

Students' group:

Imagine that you are in seventh grade. This is your first lesson. Therefore, you are quite interested in your teacher's personality. You actively participate in analyzing the problem situation and finding relevant solutions. At first, it is not easy for you to do this, you are active, but your answers are quite vague. Nevertheless, your teacher encourages you to understand the essence of the problem raised.

Experts' group:

1. Carefully follow "teacher's" actions aimed at involving "students" into the analysis of problem situations and selecting relevant solutions.

2. How do these techniques contribute to activation of "students" cognitive activity. What are the effects?

3. Do "teachers" take into account "students" age characteristics, intellectual capabilities while selecting and analyzing problem situations? Evaluate "teacher's" activities (according to a 10-point scale).

The use of didactic games contributed to an increase in the level of development of future teachers' skills in pedagogical improvisation in order to make quick and correct pedagogical decisions in unforeseen situations. Thus, the number of students with high level of development of skills in pedagogical improvisation increased by 12.3 %. The number of students with an average level increased by 19.7 %. It has been found that skills in

pedagogical improvisation defined speed and non-standardity in solving unpredictable pedagogical situations, variability of these solutions and their validity. The number of students with low level decreased significantly by 32.0 %.

Conclusions. The number of students with a low level effectively decreased due to educational didactic games, which ensured the EG students' high activity in educational activities, and encouraged them to develop their skills and a responsible attitude towards their collective responsibilities in solving pedagogical problems situations. Future specialists were made aware of the need to develop skills in pedagogical improvisation, decision making, and an ability to choose various methods and techniques to solve problem situations.

Prospects for further research include identifying pedagogical conditions required to develop students' readiness for pedagogical improvisation, defining the particular characteristics of future teachers' training for pedagogical improvisation taking into account professional training, etc.

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