SYSTEM-ACTIVITY TEACHING APPROACH in UKRAINIAN HIGHER EDUCATION INSTITUTIONS

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Abstract.

The article discusses the essential characteristics and specifics of teaching in higher education through a system-active approach. The introduction includes a retrospective of the emergence of the concept of «system-activity approach», the prerequisites for its formation. The work tracks modern trends in the educational system of Ukraine, which necessitate the use of effective teaching methods to form a highly effective teaching structure. The article also includes an overview of the methodological base of the system-activity approach and consideration of the main principles and techniques used in its implementation.

Keywords: system activity approach, higher education institution, methodology, methods of the system activity approach.

I.   Introduction

The relevance of the research

Due to the necessity to implement a new pedagogical system of Ukraine in educational institutions of various levels, which requires full knowledge of the principles, techniques and the general methodology of the system-activity approach.

The novelty of the research

The history of a system-activity approach to learning was examined during the study, and an analysis of its use in teaching students of higher educational institutions was carried out.

Research objective

To identify the specifics of the implementation of the system-activity approach to teaching in Ukrainian higher educational institutions.

Background of the system-activity approach

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The system-activity approach has become a product of combining two methodological learning approaches:

- ✓   activity (approach representatives were: L. Vygotskiy, V. Davydov and L. Zankov);
- ✓   systemic (the establishers of this approach were: B. Anan'yev, B. Lomov).

In the thirties of the XX century, L. Vygotskiy developed an approach that was based on the formula of the complex of development and learning equal to the zone of proximal development. The author believed that properly organized learning is not equivalent to development, but, taking learning in relation to it, this forms the zone of the child's proximal development. The latter was interpreted as children's activity, ahead of its natural development, which is carried out together with the teacher and is not possible to fulfill it individually.

The investigation of D. El'konin and V. Davydov made changes in the learning theory of L. Vygotskiy. Scientists have supplemented the formula of Vygotsky's training system with a new element called activity.

Later on, A. Luriya and L. Zankov, based on the innovations of El'konin and Davydov, created an activity principle that determined personal development by activity and drew a semantic parallel between activity performance and personal qualities. So, the main point of the activity approach was to focus on the direct practical activity of students for their effective personal development.

In Ukraine the system-activity approach was adopted the same way as in the entire Soviet-post-Soviet space. It was actively distributed in educational institutions of different regulations, and teachers used new teaching methods in practice. At the same time, passive-illustrative methods preserved a significant role in the educational process, and therefore, we cannot speak of a fundamental change in the education system.

The concept of system-activity approach

The concept of a "system-activity approach" was established in 1985 by A. Sukhov and A. Asmolov, summing up the long-running opposition polemics of scientists who advocate a system and activity approach. In 1987, A. Rakhimov introduced a new learning system to the scientific world based on systemic and activity-based approaches, borrowing advantages from each of them. The new approach theory was based on a systemic concept and its way of organizing the surrounding space, while practical activities were carried out on the basis of the learning activities of the practical concept.

The concept of a "system-activity approach" is interpreted as a specific organization of the learning process, during which the independent active and diverse cognitive activity of the learner is brought to the first significant position. Thus, the student (in our case, a student of a higher Ukrainian educational institution), takes the position of the entity of the educational process, and the teacher and student function during the learning as equal partners.

The key idea of the approach

The key idea of the approach developed by Rakhimov was to specify in details the main result of children's education, not separate knowledge, skills and abilities, but the person's ability and willingness to conduct productive activities in certain life situations.

According to Asmolov, the system-activity approach is a process aimed at full-fledged personal development, improvement of personality guidelines and enhance of the ability for subsequent self-development thanks to independent reflexive organization.

II.   Methodology

Authors used analysis of the scientific literature on the problem, as well as deduction, induction, comparison, and analogy.

When writing an article, the authors were guided by the analysis of the scientific literature on the matter. An analysis of the emergence of the concept in the historical aspect was carried out based on the scientific works written by D. El'konin, L. S. Vygotskiy, V. V. Davydov, as well as articles by Zhdanova S. V., Toisteva O. S. The introduction reflects the process of methodological ontogenesis of two principles: systemic and activity, which jointly formed a system-activity approach.

Today's challenges of the information society and the requirements for the educational system were considered on the basis of scientific articles and monographs by Asmolov A. G., Fisenko T. I. Zhulanova I. V., which presents new current and upcoming changes in the country within education sphere, and also identified strategic and tactical goals for the future.

The main principles of the methodology of the system-activity approach were formed on the basis of the scientific works of A. Khutorskiy and A. Asmolov. In the course of the research, methods and techniques were identified that allow you to develop students' communicative skills, contribute to the development of public speech qualities, increase self-awareness, independence in solving tasks, and also help to develop social interaction skills in the team. This is necessary both for humanities and technical degree students.

Lastly, we identified the main problems that a teacher of a higher educational institution may encounter when teaching students through a system-activity approach, and emphasized the need to overcome them on the way to developing a new education system in Ukraine.

III.   Results and Discussion

Conditions for education development in modern Ukraine

Today, independent Ukraine has created favorable conditions for the development of pedagogical theory and practical methods based on the Law "On Higher Education", the State National Program "Education" ("Ukraine of the XXI Century"), and the National Doctrine of the development of education of Ukraine in the XXI Century. Ukraine became a member of the Lisbon Recognition Convention (13.12.2007), signed the Budapest-Vienna Declaration (2010), which allowed it to enter the European Higher Education Area. Therefore, the clear goal facing the Ukrainian educational system is to harmonize the process of training university students in such a way as to increase the conversion of diplomas of Ukrainian universities in the European labor market, as well as create a favorable climate for Ukrainian students to exchange information with prestigious universities in Western Europe to learn from their experience. All this determines the need to improve approaches to learning in Ukrainian universities, select the most effective pedagogical methods that allow us to achieve strategic goals and produce valuable sought-after specialists. The new educational reform of the country determines a fundamental change in the structure and vectors of interaction between the teacher and students.

Transition from a classical passive approach to obtaining "ready-made knowledge" to a system-activity approach

A. Diesterweg wrote that scientific data should not be communicated to students, but it was necessary to bring them to a state where they themselves were ready to discover, learn, and master them. The author called this educational method the most complex, difficult, but at the same time the most suitable for learning. Diesterweg explained the difficulty of its application in practice by the uncommonness of this method, calling listening, dictation, reading and representation as "kid's stuff".

Among the approaches that today satisfy all the qualities of an ideal educational methodology, we can add the system-activity approach. It allows you to educate and develop personal qualities that meet the challenges of the modern information space, the level of technical and economic innovation, the system of building a democratic society, as well as cultural and confessional dialogue.

Thanks to the implementation of the approach, students get the opportunity to take an active educational-cognitive position, to create and deepen the ability to use universal methods of cognition and transformation of the world. Thus, students receive knowledge not in a passive and illustrative way, but accumulate it as a result of practical activity. Each student can answer the questions "What can I learn and how can I get this knowledge?" And also create a plan for the least expensive and the fastest way to achieve my goals.

T. Fisenko noted in his works on the theory of the system-activity approach that the main idea of such learning is the lack of ready-made knowledge given to students. Students should carry out independent research activities in order to obtain a solution once they have a learning problem statement. During the process, each student develops the necessary skills and abilities, and also gains a skill to solving similar issues in the future.

Meanwhile, the university teacher's task (this can be applied to any discipline), which initiates learning within the system-activity approach, is to properly organize students' research work, to motivate and stimulate students' active work. Thus, the teacher must be proficient not only in various methods of implementing the approach, but also be able to create the necessary working environment and initiate students' search activity. The teacher's responsibility also includes the organization of educational activities in such a way that the students can find a solution to the problem using their own abilities and talents during the creative transformation of the educational material.

The key element, which is critical for teaching by means of the system-activity method, is the difficulty that activates students to obtain a personal educational result, to generate an idea, method, approach, and hypothesis. Only if the teacher of the higher educational institution complies with the above conditions, the implementation of the system-activity approach will give results: students will master the ability to independently identify opportunities for productive achievement of educational (and then life) goals.

These features of the implementation of the system-activity approach distinguish it from the classical passive approach to obtaining "ready-made knowledge". Traditional methods are based on the assimilation of information taken from educational material through listening or reading, while the system-activity approach ensures the development of knowledge by putting a person in a situation and making him find a solution to the problem.

The shift to the system-activity approach of a higher educational institution requires highlighting the ways of organizing a collective thought process and generating a search heuristic situation, while the methods of implementing the approach determine the student's independent development and improvement.

During the approach transition the teacher prepares didactic material for classes; creates a system of friendly, positive relationships between students (since the atmosphere in the classroom directly affects the success of the implementation of the system-activity approach, stimulating or, vice versa, diminishing the students' potential); initiates an active discussion of the results of educational activities through leading questions; helps to highlight the advantages and disadvantages of decisions and make a plan for their correction.

Summarizing the features of the implementation of the system-activity approach in a higher educational institution, we can say that the main difficulty in ensuring the correct functioning of the educational process is maintaining its integrity as an integrative property, achieved through a number of thoughtful stimulating actions of the process participants.

Competency-based qualities development in students for a system-activity approach

The system-activity approach determines the development of the following competency-based qualities among students:

- professional competence;
- ability and willingness (including lack of fear) to solve emerging issues;
- desire for self-development and self-education;
- ability to use information sources and successfully process the information received;
- ability for social interaction with society, team, group, and individual;
- communicative competence.

Principles that underlie the system-activity approach in teaching

Let's consider the principles that underlie the system-activity approach in teaching students of higher educational institutions of Ukraine:

- *Integrity.* Students gain skills and abilities in a systematic manner. That is, the perception about society and the world around them, including human activities, are enclosed in a common interdependent structure in which direct and inverse relationships can be traced.

- *Activities.* The basic principle that characterizes the entire approach. The student does not receive ready-made knowledge, but is forced to make efforts to obtain it, while realizing the content of his activity, its possible forms, existing restrictions and rules, helping to improve them, developing his own educational and cultural skills.

- *Continuity.* This principle implies the dependence of all stages of learning on each other at the technological level, their graduality, continuity and orientation towards field of expertise, age characteristics of students and the specifics of their psychology.

- *Psychological comfort.* Elimination of stress factors during the educational process, the creation of friendly atmosphere in the student group, the teacher's focus on cooperation and active positioning in the student environment. The pursuit for a dialogue.

➤ *Minimax.* This principle is based on the ability of a higher education institution to offer students the maximum amount of knowledge (at the level necessary for a particular student) while ensuring the assimilation of this knowledge at a minimum level regulated by the state.

➤ *Creative implementation.* The principle of the approach determines the full focus of the educational process on the development of divergent creative thinking, on the acquisition of experience and skills in the course of active independent creative activity by the teacher's guidance.

➤ *Variability.* The principle involves teaching students to choose and select the necessary options from existing ones, and then makes competent situational judgement taking into account the existing circumstances.

The system of principles presented by us, which underlie the approach, make it possible not to exclude, but to use all the advantages of traditional teaching (visibility, conscious acceptance of knowledge, accessibility, etc.), developing it, revealing new possibilities of the educational process that meets the most serious up-to-date requirements. At the same time, a multilevel system has the ability to self-regulation, providing the development of an individual educational trajectory for each student. The system-activity approach allows you to change the entire educational paradigm, thereby marking the transformation of the traditional educational system into an innovative one.

Techniques used in implementing the system-activity approach

Next, we should move on to specifying the techniques used in implementing the system-activity approach. Active, interactive, design and research techniques are used in practice. In our opinion, the most effective of them include interactive techniques ensuring the implementation of the above principles (creative implementation, variability, activity) in practice.

Non-traditional game and design forms of conducting classes can increase the cognitive activity of students. Indeed, interest in activities is the first compulsory condition to devotion of a specific material in particular and the subject as a whole. Within the system-active approach, the university showed a perfect performance:

➤ role-play games;

➤ discussions;

➤ debates.

For example, let's consider relevant techniques that help effective student learning.

Role-play game technique

Role-play game allows students to acquire the necessary competencies as a leading factor in the success of mastering a specialty. In addition, role-play games stimulate the formation of special operating procedures (in professional and social life spheres) to solve problems. The latter is especially relevant in view of the transformation of the educational system with a practical orientation.

The advantage of role-play games is the accumulation of necessary practical experience among students, communication and dialogue skills development. Thus, role-play games contribute to learning in solving the tasks, and in an interesting, not boring manner, which is important for the parallel assimilation of material in the specialty.

Role-play games are appropriate both in teaching students of technical and humanitarian specialties, which are determined by the need to develop empathy in both cases, the ability to argue, and to defend one's own point of view, which makes it possible to master the ability to observe the situation from the outside.

During the game, each student is actively engaged in taking over the assigned (or chosen) role, which is accompanied by getting into the role, penetration into the formed environment. Students have to improvise within the agreed framework to achieve the goal of the game, the educational task, while following the rules and social regulations.

Role-play game initiates the development of unique behavioral reactions of students, provides an opportunity to develop professional skills and encourages finding creative non-standard solutions.

It should be noted that the ineffectiveness of role-play games when teaching students of higher educational institutions is usually associated with insufficient learning of a teacher who could not get students interested or did not work out the technical side of the issue properly. This leads to the carelessness of the event, therefore, the low interest of the student audience. In this regard, it's recommended to create a clear plan of action for the introduction of role-playing with detailed specification in the educational process.

Discussion technique

The discussion is recommended to be used in group theoretical and practical exercises, when expressing their own opinions allows students to interpenetrate into the development of the topic. Sometimes the teacher combines lecture material with its discussion in the form of a discussion. That is, the discussion arises on the basis of the matters of lectures.

The interactive discussion method teaches students to analyze the proposed questions, situations, draw appropriate conclusions, and find different ways to solve problems on the topic. It's also significant that the discussion makes it possible to simulate difficult situations when one person cannot work out all the vulnerabilities.

The discussion requires rigorous preparation from the teacher, which distinguishes it from a simple conversation. Writing a preliminary plan, this includes a list of stages, key points and the deliberate introduction of "acute" issues to stimulate communicative activity. Moreover, it's necessary to set the timing for each stage, to select reference materials and scientific literature.

The teacher should choose a problematic discussion topic, which makes it possible to present different (opposite) points of view that affect the psychological attitudes of the audience. During the implementation of the method, it's the responsibility of the teacher to coordinate the discussion; it should not become boring for students, while there should be enough time for discussion since a strict restriction creates a stressful and anti-creative atmosphere.

Problematic moments of the discussion are often associated, as in the case of role-play with poor preparation of a teacher. The teacher offers an interesting topic that captivates students, but due to insufficient development of possible arguments on the problem, he cannot lead the discussion. This leads to conflicts between students during the discussion, violation of the timing of the stages, the decay of the students' interest.

The effectiveness of the discussion depends on the correct functioning of the teacher. He, as a leader, must have full control over the issue and know the nuances of argumentation, have his own point of view, but not impose it. The teacher, as an intermediary, is responsible for the well-minded and friendly atmosphere throughout the lesson, the clear formulation of the discussion topic, presentation of problematic issues, the monitoring of the equality of all participants and compliance with the given rules. The teacher gently leads the group thanks to the

wording of the questions, recording the suggested ideas. At the end of the discussion, the reflection stage is required, which includes a discussion of ideas and hypotheses expressed during the work.

Debates technique

Debate is an interesting and productive interactive technique that is used among specialists of different categories in higher educational institutions during learning process. It allows you to encourage in reading, hone the skills of processing literature and mastering the necessary knowledge, it also develops motivation, critical thinking, helps to improve the ability to analyze and share information, helps to develop an argumentative and counterargument base, and accelerates their introduction into the educational vocabulary.

Besides, the debate reveals creative abilities, helps to have an abstract look at the problem from the outside, and engage non-standard solutions. Due to the fact that the debate is a collective process that takes place in a group of students, they initiate the development of communicative abilities: attentiveness to expressing vis-a-vis, tolerance and correctness in conducting debates, ability to work in a team.

Students who often participate in debates on professional topics, gain public speaking skills, and are able to clearly express their thoughts. All this arranges and affirms in consciousness a civic, social position, an opinion on many scientific and extra-scientific issues. A particular quality of the debate is that this intellectual game teaches speakers how to use their strengths. The conviction of the jury in its correctness requires not only competent argumentation, but also considering other factors (appearance, tempo and voice timbre, gesture system, facial expressions). Such practical experience is extremely useful not only for the assimilation of educational material, but also for the development of social skills.

All students take part in the debate; some assume the role of expert jury and its chairman. In some cases, part of the students becomes spectators who help speakers to select arguments and responsible for the formulation of questions. All other participants are divided into two teams; the teacher announces a number of issues that are submitted for discussion. During the debate, it's necessary to strictly comply with the rules (the chairman of the jury is in charge to monitor this) to avoid conflict situations. Each participant has the right to speak once, after which the word passes to the speaker of the opposing team for further reaction. Teams come up with opposing views for the formation of a competent argument.

Once all the speakers expressed their opinion, the argumentative base is presented to the experts; the speakers conduct a closing speech, a kind of analysis of the event. The speakers themselves summarize and, at the same time, consolidate the skill of summarizing the problem and isolating the main topic. At the end of the game, the experts decide the winner of the debate. They evaluate the persuasiveness and strength of the arguments of both teams, after which they announce the winning team. In some cases, spectators can vote, whose results are processed by an expert jury.

Sometimes students are so fascinated about the debate that it can be held for quite some time. This is a good sign, indicating that the used interactive method was appropriate, correctly implemented, and the required learning effect was achieved.

IV.   Conclusions

Lastly, the article should separately mention the problems that arise in the implementation of the system-activity approach in higher educational institutions of Ukraine. We'll list some of them:

• Unpreparedness and unwillingness (due to lack of preparation) of students to study by means of these principles.

• Insufficient teacher's experience in competently building the learning situation.

• Weak involvement of the teacher in the educational process (the implementation of interactive methods in the framework of the system-activity approach), which negatively affects the students' motivational attitude.

• A negative psychological atmosphere in the team (a system-activity approach requires a friendly and positive atmosphere).

• Weak material base, which does not allow carrying out productive educational activities in a higher educational institution (this problem is especially acute due to insufficient financing of higher educational institutions).

The listed vulnerabilities in the educational system of Ukraine during learning through the system-activity approach significantly complicate, and in some cases, inhibit the work of the teacher. Each of these drawbacks must be surpassed; for this, a set of measures is being developed that will eliminate the shortcomings. This is necessary not only for the full implementation of system-activity methods in one higher educational institution, but also for positive changes in the entire education system of the country.

The system-activity approach is the basis for building an education system that will meet the requirements to educate erudite, cultural, purposeful, creative, critically-thinking state citizens. In this regard, pedagogical models are highly demanded, forming the above qualities, contributing to the creation of new cultural layers for future generations.

Therefore, the use of a system-activity approach in teaching students of higher educational institutions can be considered an indispensable condition for the development of a civil legal society.

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