The systemic-activity approach as a means of students perceiving their activity

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Abstract. This article provides a characterization of the systemic-activity approach in education, describes approaches to interpreting the concept, points up the components and principles of implementing it, and defines the correlation between the systemic-activity and competence approaches. The author provides a rationale for the diversity and ambiguity of apprehending the essence and purport of the systemic-activity approach in education. [Karaseva E.M., Rak O.V., Korsak A. **The systemic-activity approach as a means of students perceiving their activity** *Life Sci J* 2014;11(11s):188-190] (ISSN:1097-8135). http://www.lifesciencesite.com. 41

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Introduction

At the modern stage, the development of education is characterized by a continuous increase in demands for its quality and a match between educational results and the demands of the modern world [1]. The issue of a shift to new educational standards is a major issue in many countries. The specific feature of this shift in Russia is that the modernization of education and orientation towards new educational results are implemented in synchronicity with major social-economic transformations taking place in Russian society.

Education ought to be organized in such a way as to form new knowledge in a goal-oriented fashion [2]. This is what the systemic-activity approach is aimed at.

The systemic-activity approach is viewed as an attempt to join up the systemic approach and the activity approach, which has always been systemic.

Information obtained based on the systemic approach has two highly significant components:

- firstly, only relevant information gets to the student;
- secondly, it is just information sufficient for solving a problem set for the student.

The examined specificity of the systemic approach is defined by that the analysis of an object as a system implies breaking it down just in the designated association – an association wherein the object is considered a system. The result of perceiving the object not as a whole but in the "cross-sectional view", in consonance with the object's systemic features, is systemic knowledge.

The essence of the systemic-activity approach

The systemic approach can be viewed from two standpoints: as one facilitating comprehension and acquisition of new knowledge (cognitive) and as one laying the groundwork for further work (constructive). Each of these aspects has its own course of passage.

Under the cognitive approach, the system's external expressions are interpreted through its internal mechanism – its composition and structure [3].

Under the constructive approach, the process goes through particular stages: the problem situation, the goal, the function, the composition and structure, and external conditions.

However, the constructive and descriptive sides of the systemic approach are indissolubly interrelated and mutually complement each other.

Activity is a goal-oriented system aimed at an end-result. The concept of the systemic-activity approach implies that the result can be obtained only if there is reach-back.

In the aggregate with the systemic approach, the activity approach attains substantial efficiency and is amplified methodologically.

The student's ability to study turns into a system of universal learning actions [4].

What does a freshman have to learn when one starts one's learning activity in college?

The essence of the systemic-activity approach lies in the indissoluble association of requirements set before the graduate with one's subsequent employment. The systemic-activity approach defines the algorithm of planning qualification requirements for graduates:

a) the specialist's professional activity is viewed as a system with conditions which are mandatory in the learning of college students;

b) defining specific qualification characteristics;

c) putting together the content of education.

The student works out one's activity abilities at the time when one is mastering new knowledge not in a passive way but is engaged in independent learning-cognitive activity. Considerable potential for

implementing the activity approach lies in off-school activity.

The federal state educational standards (FSES) are grounded in the systemic-activity approach, which defines three groups of requests on its design and implementation:

1. Expressing the goals of education as the anticipated results of student activity;
2. Constructing the primary educational program (PEP);
3. The conditions of putting the standards in practice.

The central idea of the systemic-activity approach

Under the systemic-activity approach, the working out of a person's competencies is turned into reality based on the "competency – activity – competence" scheme, and competence is established as "knowledge in action", which is expressed in the ability to employ acquired knowledge and skills to attain efficient results in one's activity.

The competence approach is the framework of new educational standards; it orients the learning process toward working out set competencies, which reflect the object's preparedness to function in specific situations [5].

The central idea of the systemic-activity approach lies in that the newest knowledge is not provided to students in ready form. Students garner it on their own in the process of independent research activity. While it is the job of the instructor to show the student in classroom training how to garner that knowledge, i.e. facilitate the correct arrangement of their activity.

The instructor ought to arrange an educational process that is aimed at fostering in the student the need to transform the learning material independently, and the result of such a transformation should be new knowledge which the student has garnered independently [6].

The learning material serves as an educational environment – not as end-knowledge to be acquired by students. The purpose of such an environment is the attainment of learning goals by students independently. The degree of difference between the results obtained by students through independent research and what is expected of them by the instructor is the degree of the efficiency of learning.

The instructor's role is not so much about teaching – it is rather about accompanying students in the course of the learning process: preparing guidance instructions for the students, creating various configurations for partnership, active participation in discussing the results of student activity, and creating situations for self-control and self-assessment.

The systemic-activity approach amplifies the special significance of the path of the student's perceiving one's activity. Without the elucidation of methods of personal learning, ways of cognition and thinking activity, learners will not be able to master new knowledge on their own [7].

Motivating towards learning activity: instructors create circumstances for the emergence in students of an inner need for engaging in activity ("I want") and marking out the content zone ("I can") [8].

Actualizing one's knowledge stock and concentrating one's subjective difficulty in test actions: instructors arrange for the preparation of students for the independent execution of a testing learning action:

1) the actualization of knowledge acquired earlier, which is enough for arranging a new course of action;

2) the training of corresponding thinking operations. At the end of this stage, there is formed a difficulty in the individual activity of learners, which is registered by themselves.

Detecting the point and basis of the difficulty – instructors arrange for the identification of the point and basis of the difficulty:

1) re-creating operations carried out and registering the point at which the difficulty started;

2) identifying the causes behind the difficulties, in solving a particular problem.

Constructing the algorithm for clearing the difficulty: instructors arrange for the process of discovering new knowledge, where learners in communicative form devise the algorithm for future learning actions: they set a goal, create a plan for attaining the goal, and come up with a solution to the problem situation.

Systemic-activity approach technology

The systemic-activity approach is realized through the following **technology:**

- Information and communication technology (interpersonal communication)
- Technology based on creating a learning situation (solving problems that are practically significant to the study of the world around us)
- Technology based on the realization of project activity
- Technology based on the stratified differentiation of learning
- Activity approach technology

Realizing the constructed project: instructors arrange for the discussion of diverse variations suggested by learners; picking the best variant.

Independent work with self-assessment based on a template: instructors arrange for students' independent execution of exercises on unconventional solutions (course of action) and checking the assignment over independently based on comparing with the template. This creates, when possible a success situation for each student [9].

Including in learning and revising new knowledge and reproducing the learning material are crucial to ensuring content continuity.

Reflecting on learning activity: instructors arrange for learners' assessing their activity, fine-tuning difficulties arisen in class as the orientation of upcoming learning activity, breaking down and executing student independent work assignments [10].

Inferences

In realizing the system-activity approach, there is orientation toward the learner's cognizance of one's self-determination in the systemic learning of academic disciplines and the choice of elective disciplines for professional growth with a sense of confidence in oneself and one's activity.

The systemic-activity approach in education helps to fully ensure the preparation of bachelors and masters in line with the requirements of the Federal State Educational Standards of Higher Professional Education.

The systemic-activity approach is an approach under which the learner does not acquire knowledge in ready form but garners it on one's own in the process of one's own learning-cognitive activity. According to A. Diesterweg, "The ultimate goal of any bringing-up is to foster self-reliance through independent activity".

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