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**ПЕДАГОГИКА ЖӘНЕ ОҚЫТУ ӘДІСТЕМЕСІ –
ПЕДАГОГИКА И МЕТОДИКА ПРЕПОДАВАНИЯ –
PEDAGOGY AND TEACHING METHODS**

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**PEDAGOGICAL ASPECT OF PREPARATION OF FUTURE TEACHERS
TO EDUCATIONAL ACTIVITY ORGANIZATION
OF MODERN SCHOOL'S STUDENTS**

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Abstract: Learning activity (LE) is the activity of a student deliberately aimed at acquiring theoretical knowledge about the subject of study and general techniques for solving related problems and, as a result, at the development of schoolchildren and the formation of their personality. For the methodological solution of the problem of the formation of the educational activity of schoolchildren in the process of teaching the solution of mathematical problems, the question of the structure of educational activity is of fundamental importance.

The components of this activity are: 1. Learning assignment (understanding by students of educational tasks, accepting an educational assignment for themselves, setting it independently); 2. Learning activities (actions aimed at completing learning tasks); 3. Actions for monitoring and evaluation (implementation by the student of both control over the implementation of educational activities, and assessment of mastering the general methodology as a result). In the process of learning, a primary school student not only learns knowledge and skills, but also learns to set goals (tasks) of learning, find ways to teach and apply knowledge, control and evaluate their actions.

Keywords: learning activities, methodological aspect, components of learning activities, learning activities, learning tasks, organization of student learning activities, mathematics education

INTRODUCTION

Much has been said and written about the problem of organizing the educational activities of students of a modern school in our republic. As the analysis of psychological and pedagogical literature in recent years shows, this issue is under the close attention of scientists, methodologists, teachers and the parental community. I would like to note that the question of the need to study the educational activities of primary school students in modern schools is understood by different authors in different ways.

The main content of educational activity is the general methods of action to solve fairly wide classes of problems. At the same time, the activity of students is directed towards mastering these general methods.

It is necessary to note the main provisions of the theory of educational activity. Activity is understood as the process of human activity, characterized by an object (what this process is aimed at), need and motive, goals and conditions for achieving them, actions and operations.

Psychologists understand learning activity (LE) as a student's activity, deliberately aimed at acquiring theoretical knowledge about the subject of study and general methods of solving problems associated with it and, consequently, at the development of schoolchildren and the formation of their personality [1-2].

As the study proves, educational activity is characterized by the following features (unlike any other activity of students in the learning process - play, work, and others):

- 1) the student sets specific goals for himself (to master a certain educational material, master certain actions, etc.);
- 2) educational activity is aimed at mastering general methods of action;
- 3) the content of educational activities is theoretical knowledge;
- 4) the result of educational activity is a change in the student himself, his development.

In the concept of educational activity, these features are manifested in three links: motivational-orientational, executive-operational, and control-evaluative.

Also, for the methodological solution of the problem of the formation of the educational activity of schoolchildren in the process of teaching the solution of mathematical problems, the question of the structure of educational activity is of fundamental importance. The noted features of educational activity determine its structure. In the concept of educational activities of D.B. Elkonin, V.V. Davydov and their employees, the following components of this activity are highlighted:

1. Learning task (student's understanding of learning tasks, acceptance of the learning task for himself, its independent formulation).
2. Learning activities (activities aimed at completing learning tasks).
3. Actions of control and assessment (exercise by the student himself of both control over the implementation of educational actions, and assessment of the assimilation of the general method as a result).

The learning task is the main structural component of learning activities. In the psychological and pedagogical literature, the term "educational task" is used in several meanings: in the meaning of the educational goal of the lesson, teaching, action (TS Nazarova, N.G. Kazansky, etc.), in the meaning of the components of educational activity (A.N. (Leontiev, D.B. Elkonin, V.V. Davydov, A.K. Markova, and others)

“An educational task is a generalized goal of an activity set (formulated) for students in the form of a generalized educational task ... Such a generalized educational task creates an educational problem (problem situation). Solving it, students acquire the appropriate knowledge and skills, develop their personal qualities aimed at "learning", ie. achieve the set goal”[3].

Consider an example of a learning task: "to understand and master the method of action to solve a word problem to compose a linear equation." Here the learning task (generalized goal) is presented as a generalized learning task. An educational task can be solved through a system of educational tasks, which are performed when solving specific educational problems (mathematical, physical and others).

Consequently, an educational task associated with specific goals is a synthesis of a subject task (with its condition and requirement) and an educational goal for the sake of which it is considered. These goals are set for students in the form of specific educational tasks. For example, when solving a word problem by writing an equation, at the stage of its analysis the following educational tasks can be formulated:

- 1) isolate the condition and requirement of the problem;
- 2) establish the relationship between the data and the desired values;
- 3) identify a way to compose an equation, etc.

The indication of the educational goal in the form of educational tasks creates the necessary conditions for students to accept the educational task and their awareness of the corresponding goal of the activity, which directly influences the formation of positive motives of cognitive activity in schoolchildren. This is also facilitated by the fact that the system of educational tasks, as it were, controls the educational activities of students in the process of forming their ability to learn and contributes to the differentiation of learning.

So, the formulation of the educational task is a motivational-orienting link of educational activity. It is clear that one and the same subject problem can be a component of several educational problems. In turn, a specific educational goal can be achieved using various subject

tasks. Consequently, educational tasks, even if a specific educational goal coincides, may differ in the structure or content of subject tasks, or both.

The second (central) link of educational activity is the performing or operational link, i.e. learning activities to solve a learning problem. They form a specific system in which they are executed in a given sequence.

V.V. Davydov identified the following educational actions aimed at solving the educational problem:

- 1) transformation of the conditions of the problem in order to discover the general (basic) relationship of the object under study;
- 2) modeling the basic relationship in a subject, graphic or letter form;
- 3) transformation of the model of the basic relation to study its properties in "pure form";
- 4) building a system of particular problems solved in a general way;
- 5) control over the implementation of previous actions;
- 6) assessment of mastering the general method as a result of solving this educational problem [2,4,8].

In educational psychology, it has been established that each of these actions consists of the corresponding operations, the sets of which vary depending on the specific conditions that determine a particular educational task. Moreover, if an action is related to the goal of a learning task, then its operations are related to the conditions for performing the action (conditions for achieving the goal).

The initial and main action is the transformation of the conditions of the educational problem in order to discover the basic relationship of the object that should be reflected in the corresponding theoretical concept. For example, in textual algebraic problems on "movement", "joint work", "cost relation" and others, the basic relation of the form is realized (since the dependence between the data and the required values is expressed by the formulas and, respectively). This attitude, which exists objectively, on the one hand, is a characteristic property that determines the elements of the task that are part of its structure, on the other hand, it acts as the genetic basis and source of all its particular manifestations.

Thus, the problem can be viewed as a system of relations, in which, on the basis of generalization, the main relation with fixed properties is distinguished. This creates an information-cognitive contradiction in the task, which helps the student to realize the conditions and requirements of the task. The main relation also performs a very important function: it controls the process of finding a solution to a problem. This process is an important internal link in the stage of assimilation of knowledge and generalized methods of action.

The next step is to model the basic relationship. The educational model, acting as a product of mental analysis, then itself can be a special means of human mental activity. The content of the basic relation model fixes the internal characteristics (structure) of an integral object.

The third educational action - the action of transforming the attitude model V.V. Davydov considers as a means of studying the basic attitude. By transforming the model, schoolchildren have the opportunity to study the properties of the selected relationship (basic) in various interpretations. Working with the educational model acts as a process of studying the properties of the meaningful abstraction of the main relation.

The orientation of students to the basic relationship of the studied integral object is the basis for the formation of a common way of solving the educational problem and thus the formation of the concept of the original "cell" of this object. The adequacy of the "cell" to its object is revealed when its various particular manifestations are derived from it.

Therefore, the next educational action is to build a system of particular problems. Performing this action, students concretize the original educational task and thereby turn it into a system of particular tasks on which one and the same basic relation is realized, therefore, they can be solved in a single (general) way, learned during the previous educational actions. Particular tasks, when a specific educational goal coincides, may differ in the content of subject tasks.

The first four educational actions, together with explicit and then implicit guidance from the teacher, are aimed at ensuring that when they are performed, students form a common way of solving the educational problem and reveal the conditions for the origin of the concept being learned, which is, as it were, built by the students themselves.

The actions of monitoring and evaluating the completed first four actions are present at all stages of solving the educational problem and allow students to turn their attention to the content of their own actions and assess the quality of mastering the general method of solving the educational problem.

Control and assessment actions involve drawing the attention of students to the content of their actions, to considering their features from the point of view of the result required by the educational task.

Feedback can come both to the trainee (student) - internal feedback, and to the trainer (teacher) - external feedback. Reinforcement is always the impact only on the learner (student) in case he receives the correct answer.

The process of assimilating a new learning action is the process of transforming external feedback into internal. When this happened, it means that the student has mastered the proposed teaching material. Thus, as the learned actions develop, external feedbacks turn into internal ones and become ways of self-control over the correctness of the actions performed.

It is also necessary to note some characteristics of the educational activity of schoolchildren and various interpretations of it in the works of famous psychologists.

For example, the work of S.L. Rubinstein is one of the first attempts to represent teaching as an activity. Here, describing the learning process, the author uses the conceptual grid of the general idea of activity developed by him (motive, goal, relation of motive to goal, etc.).

Doctrine, as a special kind of activity, is set by S.L. Rubinstein through the indication of its goals. According to this author, the main goal of the teaching is "to prepare for future independent activity." In addition, the purpose of teaching is also the development of the ability to independently "obtain" knowledge [5-7].

Since the type of activity is determined by S.L. Rubinstein not by motive, but through goals, results of activity, the activity of learning can be motivated in very different ways.

Using the well-known position of S.L. Rubinstein that "external causes act through internal conditions", N.A. Menchinskaya and D.N. Bogoyavlensky describe learning as a process where teaching aids (teacher, textbook, technical teaching aids) act on internal conditions (past experience of students, the prevailing features of mental activity, motivation, etc.), and learning outcomes act as products of this interaction. The need to study the internal conditions of the learning process suggests, according to these authors, the study of students' activities. As you know, the progress of any society depends on the number of smart and educated people. The intellectual potential of the country and the people, accumulated over many centuries, has served and continues to serve as a "tool" for the progress of society, the development of its culture.

Under these conditions, the social significance of mathematics education is quite large. Traditionally, the course of mathematics is central to school education. It is quite obvious that the organization of student learning activities requires a qualitatively new approach to the learning process.

Learning activity is the leading activity of primary school students. It is carried out throughout the entire education of the child at school. Thus, learning activity is, first of all, such an activity as a result of which changes occur in the student himself. This is an activity of self-change, its product is those changes that have occurred in the course of its implementation in the subject itself.

These changes are:

- changes in the level of knowledge, abilities, skills, training;
- changes in the level of formation of certain aspects of educational activity;
- changes in mental operations, personality traits, i.e. in the level of general and mental development.

Learning activity is a specific form of individual activity. It is complex in structure and requires special formation. As well as labor, educational activity is characterized by goals and motives. Like an adult doing a job, a student must know what to do, why to do, how to do it, see his mistakes, control and evaluate himself. A child entering a modern school does not do any of this on his own, i.e. he has no learning activity.

In the process of educational activity, a primary school student not only learns knowledge, skills and abilities, but also learns to set educational tasks (goals) for himself, find ways to assimilate and apply knowledge, control and evaluate his actions [8-13].

Thus, the study shows that this specificity of the implementation of educational activities in teaching students to solve mathematical problems allows us to highlight the main methods of educational activities. Each of the approaches to the organization of the educational process, to the management of the educational activities of primary school students is legitimate in the context of the tasks facing the researcher and his theoretical platform.

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Түйін: Оқу іс-әрекеті (ОЖ) - оқушының зерттеу пәні туралы және теориялық мәселелерді шешудің жалпы әдістері туралы теориялық білім алуға, нәтижесінде мектеп оқушыларының дамуына және олардың жеке басының қалыптасуына бағытталған іс-әрекеті. Математикалық есептерді шешуді оқыту процесінде мектеп оқушыларының оқу іс-әрекетін қалыптастыру мәселесін әдіснамалық шешу үшін оқу іс-әрекетінің құрылымы мәселесі түбегейлі маңызды.

Бұл іс-әрекеттің құрамдас бөліктері: 1. Оқу тапсырмасы (білім алушылардың оқу міндеттерін түсінуі, оқу тапсырмаларын «өздері үшін» қабылдау, оны дербес қою); 2. Оқу іс-әрекеті (оқу

тапсырмаларын орындауға бағытталған іс-шаралар); 3. Мониторинг және бағалау бойынша іс-әрекеттер (білім алушының оқу іс-әрекетін бақылауды да, жалпы әдістеменің игерілуін бағалауды да жүзеге асыруы). Оқыту процесінде бастауыш сынып оқушысы білім мен дағдыларды игеріп қана қоймай, сонымен бірге оқытудың мақсаттарын (міндеттерін) қоюды, білімді оқыту мен қолдану тәсілдерін іздеуді, олардың іс-әрекеттерін бақылау мен бағалауды үйренеді.

Кілттік сөздер: оқу іс-әрекеті, әдіснамалық аспект, оқу іс-әрекетінің компоненттері, оқу әрекеті, оқу міндеттері, оқушының оқу әрекетін ұйымдастыру, математикалық білім.

Аннотация: Учебная деятельность (УД) - деятельность учащегося, сознательно направленная на приобретение теоретических знаний о предмете изучения и общих приемах решения смежных задач и, как следствие, на развитие школьников и формирование их личности. Для методического решения проблемы формирования учебной деятельности школьников в процессе обучения решению математических задач принципиальное значение имеет вопрос о структуре учебной деятельности.

Компонентами этой деятельности являются: 1. Учебное задание (понимание обучающимся учебных задач, принятие им учебного задания «для себя», его самостоятельная постановка); 2. Учебная деятельность (действия, направленные на выполнение учебных задач); 3. Действия по мониторингу и оценке (осуществление студентом как контроля за выполнением учебной деятельности, так и оценка усвоения общей методики в результате). В процессе обучения ученик начальной школы не только усваивает знания и навыки, но и учится ставить цели (задачи) обучения, находить способы обучения и применения знаний, контролировать и оценивать свои действия.

Ключевые слова: учебная деятельность, методический аспект, компоненты учебной деятельности, учебные действия, учебные задачи, организация учебной деятельности учащихся, математическое образование.