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Karsybayeva R.,[1] Izmagambetova R.,[2] Aitzhanova E.[1]*

[1]Kazakh national women's teacher training university, Almaty, Kazakhstan
[2]Abai Kazakh national pedagogy university, Almaty, Kazakhstan

DEVELOPMENT OF COGNITIVE ACTIVITY OF PRIMARY SCHOOL STUDENTS THROUGH TASKS

Abstract

This article defines and analyzes the ways and methodological guidelines for the formation of creative abilities of Primary School students, types of non-standard, oral and written problems and creative actions of children in solving them, ways of thinking and stages of development of skills. In addition, the article analyzes and shows how to solve the problem based on the feedback from students and the results of specific actions performed during the lesson, using the method of logically solving the main problems in the formation of creative abilities of Primary School students, based on the knowledge and experience of the teacher. It serves as a means of forming primary school students ' interest in learning based on changing the form of tasks and using mental operations in the formation of their creative abilities. The article describes the essence of interest in reading, the specifics of the main stages of its development.

Keywords: creative thinking, ways of thinking, analysis, comparison, generalization, formation, flexibility of thinking, mathematics, criterion, creative activity, task.

Р.Карсыбаева, [1] Р.Измагамбетова, [2] Е.Айтжанова [1]*

[1]Қазақ ұлттық қыздар педагогикалық университеті, Алматы қ., Қазақстан
[2]Абай атындағы Қазақ ұлттық педагогикалық университеті, Алматы қ., Қазақстан

ТАПСЫРМАЛАР АРҚЫЛЫ БАСТАУЫШ СЫНЫП ОҚУШЫЛАРЫНЫҢ ТАНЫМДЫҚ БЕЛСЕНДІЛІГІН ДАМЫТУ

Аннотация

Бұл мақалада бастауыш сынып оқушыларының шығармашылық қабілеттерін қалыптастырудың жолдары мен әдістемелік нұсқаулар, стандартты емес, ауызша және жазбаша есеп түрлері мен оларды шешудегі балалардың шығармашылық әрекеттері, ойлау тәсілдері мен дағдыларының даму кезеңдері анықталып талданған. Сонымен қатар, мақалада мұғалімнің білімі мен тәжірибесіне сүйене отырып, бастауыш сынып оқушыларының шығармашылық қабілеттерін қалыптастырудағы негізгі мәселелерді логикалық түрде шешу әдісі арқылы оқушылардың кері байланысына және сабақ барысында орындалған нақты әрекеттердің нәтижелеріне сүйене отырып, мәселені қалай шешуге болатындығын талдап көрсетеді. Бастауыш сынып оқушыларының шығармашылық қабілеттерін қалыптастыруда тапсырмалардың формасын өзгерту және ақыл-ой операцияларын қолдану негізінде оқуға деген қызығушылығын қалыптастыру құралы ретінде қызмет етеді. Мақалада оқуға деген қызығушылықтың мәні, оның дамуының негізгі кезеңдерінің ерекшелігі сипатталады.

Түйін сөздер: шығармашылық ойлау, ой тәсілдері, талдау, салыстыру, жалпылау, қалыптастыру, ойлау икемділігі, математика, критерий, шығармашылық белсенділік, тапсырма.

Карсыбаева Р.,[1] Измагамбетова Р.,[2] Айтжанова Е.[1]*

[1]Казахский национальный женский педагогический университет
г. Алматы, Казахстан
[2]Казахский Национальный Педагогический Университет имени Абая
г. Алматы, Казахстан

РАЗВИТИЕ ПОЗНАВАТЕЛЬНОЙ АКТИВНОСТИ МЛАДШИХ ШКОЛЬНИКОВ ЧЕРЕЗ ЗАДАНИЯ

Аннотация

В данной статье определены и проанализированы пути и методические указания по формированию творческих способностей младших школьников, нестандартные, устные и письменные виды задач и этапы развития творческих действий детей при их решении, способов мышления и умений. Кроме того, в статье анализируется, как решить проблему, опираясь на знания и опыт учителя, с помощью метода логического решения основных проблем в формировании творческих способностей младших школьников, опираясь на обратную связь учащихся и результаты конкретных действий, выполненных в ходе урока. Служит средством формирования у младших школьников интереса к обучению на основе изменения формы заданий и использования мыслительных операций при формировании творческих способностей. В статье описывается сущность интереса к чтению, специфика основных этапов его развития.

Ключевые слова: творческое мышление, способы мышления, анализ, сравнение, обобщение, формирование, гибкость мышления, математика, критерий, творческая активность, задание.

Basis provisions. The creative thinking of the student is expressed in the discovery of a new, previously unknown: a new way of solving the problem, a new property of the subject under consideration, new connections in the educational material, etc. Where there is no such discovery, there is no creativity. The ability of students to create something new without relying on a sample develops when solving problems that require creativity, as a result of which mathematics is taught.

Creative thinking includes: the implementation of non-template approaches to activity, the ability to set new goals, control in evaluation, planning, non-trivial approaches to analysis, comparison, generalization, formation of evaluation criteria, etc. To form students of these thought processes, it is necessary to develop productive tasks that are directly aimed at the development of creative thought processes, such as planning requires input, non-template analysis, comparison, general conclusion.

In this regard, there are great opportunities in mathematics lessons, in particular when studying new material with the help of problems. To form the flexibility of thinking, it is necessary to solve problems and examples of various types in one lesson, and it is necessary to analyze them, discuss the conditions and features of the solution. When solving tasks of a new type, it is necessary to compare it with familiar tasks, to highlight new elements in it that were not in the tasks solved earlier.

The student meets the task from the first days of school. In one of the first conversations with a student, the teacher, trying to find out what kind of life experience and knowledge his student has, turns to the simplest task. For example: " Two corners of a triangle are known. What is the third corner equal to?"

Introduction. From the beginning to the end of school, the mathematical task constantly helps the student to develop the correct mathematical concepts, to find out more deeply the various aspects of the relationships in the life around him, makes it possible to apply the studied theoretical positions, allows you to establish a variety of numerical relationships in the observed phenomena. At the same time, solving problems contributes to the development of the child's thinking, independent assimilation of new material. Active work of thought contributes to the development of attention and curiosity in the student and significantly increases his interest in the subject.

The task is a question formulated in words, the answer to which can be obtained through arithmetic actions.Let's look at the basic elements that make up each task, and find out what it means to solve the problem.It follows from the very definition of the task that it must necessarily contain some kind of question. There is no task without a question. Since the answer to the question should be obtained as a result of logical actions, obviously, it should contain a requirement to find out this or that number (or numbers) - the desired and. In addition, the task must specify the conditions with the help of logical actions on which the desired can be found. Therefore, the mandatory elements of any task are an unknown (desired) number (or several desired numbers) and given numbers (there must be at least two of them).

The main feature of text tasks is that they do not directly indicate which action (actions) should be performed on these numbers to get what you are looking for. Therefore, the text of the task may contain some indirect indications not the connection that exists between these numbers and the desired one and which determines the choice of the necessary actions and their sequence. This is the condition of the task. The condition, which is designed to reveal the relationship between the data and the desired one, naturally includes the numerical data of the problem.

The main feature of text tasks is that they do not directly indicate which action (actions) should be performed on these numbers to get what you are looking for. Therefore, the text of the task may contain some indirect indications not the connection that exists between these numbers and the desired one and which determines the choice of the necessary actions and their sequence. This is the condition of the task. The condition, which is designed to reveal the relationship between the data and the desired one, naturally includes the numerical data of the problem.So, the main elements of the task are the condition and the question. Numeric (or alphabetic) data represent condition elements. The search is always contained in the question. However, in some cases, the task is formulated in such a way that the question may include conditions, or the whole task is presented in the form of a question.

All this must be taken into account when teaching younger students to solve problems. One of the important points of learning is that students learn to independently perform the primary analysis of the text of the task, separating the known from the unknown. It is essential that they be able not only to isolate numerical data from the problem, but also to explain what each of the numbers contained in it means in the context of the problem itself, what is said about the number to be found, etc. It is important that during the initial analysis, attention should be paid not only to the selection of data and what is being sought, but also to the connections between them described in the text of the task.

Generally speaking, solving a problem means answering the question posed in it. This is how children most often understand the requirement to solve the problem themselves. Quite often it happens that as soon as the teacher has reported the task, students immediately give an answer to her question. There is a widespread opinion among teachers that if a student cannot explain how he got the answer to the question of the problem, it means that he has not solved it. Children internally can never agree with this. There is a kind of conflict situation, which in this case is not useful at all. The reason for it is that the teacher understands the requirement to solve the problem much more widely than just to answer her question. The problem of learning to solve problems will probably always remain one of the most relevant, since it develops the cognitive activity of schoolchildren.

Today, among the important tasks facing the education system, the problem of mental education of a younger student is of particular relevance. One of the central issues of mental education is the development of cognitive activity of children. The problem of cognitive activity belongs to the traditional themes of Kazakhstan psychological and pedagogical science. Famous scientists have addressed various aspects of the problem in their research: L.P. Aristova [1], D.B.Bogoyavlenskaya [2], L.S. Vygotsky [3], D.B. Godovikova [4], O.O. Denina [5], E.E. Kravtsova [6], E.A. Krasnovsky [7], M.I. Lisina [8], N.A. Moreva [9], A.M. Matyushkin [10], V.D. Shadrikov [11], T.I. Shamova [12], V.V. Shcheinina [13], G.I. Shchukina [14] and others.

Training is a specially directed process in which the teacher organizes active educational and cognitive work of children to master their knowledge, skills and abilities, the development of creative, creative abilities and moral ethical ideas. Of great importance for the development of cognitive activity is the development of mental processes – memory, attention, imagination. These processes, according to psychologists, are the basis for the development of thinking and creative abilities of students.

Today, in the conditions of powerful economic development, education is gradually becoming more complicated, training is moving from simple teaching of material to the development of a creatively thinking, thinking and able to apply their knowledge in practice. Therefore, the education system must provide a qualitatively new level of general education, vocational training. Already in the elementary grades, the primary goals of learning are undergoing changes: in the first place is the cognitive function, the cult of activity, independence, unconventionality of thought, which ensures the development of the child's intelligence. The main task of the teacher is to ensure that each lesson contributes to the development of children's cognitive interests. Interest is an effective means of successful learning, a necessary condition for achieving positive results. When a child becomes interested in the material, he will have a desire to learn more about it. Effective learning is impossible without searching for ways to activate the cognitive activity of students, because children should not only learn a certain amount of knowledge, but also to learn to observe, compare, identify the relationship between concepts, to reason. And this can be achieved only by means that activate cognitive activity.

These include: didactic games, game situations, creative tasks, non-standard tasks. It is important to pay special attention to the development of cognitive activity in primary grades also because it is in these classes that the basic intellectual skills are formed. The analysis of psychological and pedagogical literature shows that it has there is a contradiction between the need to create and develop the cognitive activity of younger schoolchildren and the insufficient development of methodological ways to develop the cognitive activity of children in primary school.

Materials and methods. In the methodological literature, the main stages of work on the task are highlighted: assimilation of the content of the text, search for a solution. Execution of the solution, verification of the solution and work with the solved problem. Usually, teachers pay the most attention to the second and third stages. But experience shows that skipping the first and last stages leads to formal, and often to incorrect decisions, a lack of understanding of why the task should be solved this way and not otherwise. For example, everyone knows the situation when students solve the main task as a simple one. This happens because the child inattentively read the task, did not perform an analysis of its text. In addition, students do not feel the need to analyze the text of the problem, since most of the tasks they solve are in one action, so the student does not choose the necessary action when solving, but tries to guess it. This tactic often leads to the right decision, since you have to choose from two possible actions.

Before considering the basics of organizing cognitive activity, let's turn to the basic concepts of "cognition", "activity" and "cognitive activity". According to G.M. Kojaspirova, cognition is a process of reflection and reproduction of reality in human thinking caused by the development of socio–historical practice, the result of which is a new knowledge about the world [15]. Specially organized cognition is the essence of the educational process. Cognition is a complex process that consists of two inseparable components. Information, which consists of information, facts of events and thought processes necessary for the acquisition and processing of information constitute the first component. Namely:

- what is a person interested in, what things he prefers for cognition;
- in what ways and means does it receive information;
- how is the process of processing information: what a person does with the information received – systematizes, organizes, collects, forgets, and so on.The information itself (information,

life events, facts) this is not the main the goal, it is not considered as knowledge for the sake of knowledge. By no means. Information is primarily a means by which it is possible to develop the processes, skills, skills, methods of cognition necessary for cognitive development. The second component refers to the attitude to information itself. This component is pronounced in children. They are ready to learn what makes them like, and vice versa, they do not even want to hear about what they are not attracted to, what they are negative about. Cognition is a process of analysis and reproduction reality through thinking. In the process of mediated sensations, perceptions, active study of objective reality, students have certain ideas about certain phenomena, objects, processes. Cognition can be represented as a sequential chain consisting of perception, memorization, preservation, comprehension, reproduction and interpretation of the acquired knowledge. The results of cognition, as a rule, are not immobile, they do not remain in the consciousness of a person, but are transmitted from generation to generation, with the help of material media such as books, drawings, cultural objects and soon. The concept of "activity" is considered by researchers as a general scientific one and is reasonably associated with activity. In particular, in philosophy, "activity" (from the French activite – the power of action) is understood as active behavior. It is advisable to consider the concept of "activity". In philosophy, under the concept of activity was the human form of attitude to the surrounding world, changing and transforming it. At the same time, there is an abundance of activities: material and spiritual, reproductive and creative, creative and destructive, etc.. In sociology, activity is considered as a conscious human action aimed at responding to people's behavior. Max Weber defined this as "waiting". In psychology, activity is understood as a system of interactions of a subject with the outside world, during which a person consciously influences an object, due to which he satisfies his needs.

According to G.M.Kojaspirova, activity is a form of mental activity of a person, including a goal, motive, methods, result, aimed at cognition and transformation of the world and man himself. V.S.Stepin argued that activity can be considered as a complexly organized network of various acts of transformation of objects, when the products of one activity pass into another and become its components. At the same time, both natural objects and people can act as objects of transformation as a result of the educational process. V.V. Davydov defines activity as a specific form of social existence of people, consisting in the transformation of reality. The concept of "activity" can be defined as a specific type of human activity aimed at cognition and creative transformation of the surrounding world, including oneself and the conditions of one's existence. But what is activity, if activity is its kind. In psychology, the term "activity" is interpreted as the active state of living organisms, the condition of their existence in the world. An active being is not just in motion, it contains the source of its own movement, and this source is reproduced during the movement itself.

M.I. Lisina also connects the concept of activity with activity and considers it in three aspects: as a type of activity; as a state opposite to passivity; as initiative. In the works of B. G. Ananyev, activity is highlighted as an indicator of his individuality. In sociology, activity is understood as activity in the broadest sense of the word, one of the fundamental elements of human behavior.In pedagogy, the term "activity" is defined as the ability to produce socially significant transformations of material and spiritual environment based on the development of the historical experience of mankind, as well as the active attitude of the individual to the world. Turning to the consideration of cognitive activity, we note that the problem of the development of cognitive activity in the scientific literature is not new. Also Ya.A. Komensky, the great Czech educator and thinker XVII century, considered this problem leading to the development of the personality of the subject of education: "youth should receive a true education, guided not by someone else's mind, but by their own, not only reading from books and understanding other people's thoughts about things, or even memorizing and reproducing them in quotations, but developing the ability to penetrate into the root of things and develop a true understanding of them and their use". In pedagogy, cognitive activity is defined as an active state of a person, which is characterized by the desire for mental tension, learning and the manifestation of volitional efforts in the process of mastering knowledge [8, 11].

Ya.A. Komensky, K.D. Ushinsky, D.Locke, J.J. Rousseau defined cognitive activity as a natural desire of a student to cognition. According to Ya.A. Komensky, "in all possible ways it is necessary to ignite in children a fervent desire for knowledge and for learning". A number of scientists (L.N. Klimenko, M.I. Lisina) consider cognitive activity in close connection with such a concept as independence [16]. By cognitive activity they mean: independent, initiative activity of the child aimed at cognition of the surrounding reality. Independent activity in obtaining the necessary information, identifying problems and finding ways to solve them. O.G. Shishkova does not distinguish between the concepts of "cognitive activity" and "independence". Interesting is the point of view of D.B.Bogoyavlenskaya, who uses the term "intellectual activity" instead of "cognitive activity". By "intellectual activity" a scientist understands a personal property, a measure of intellectual initiative [2, 138].

Emphasizing the activity nature of cognitive activity, some scientists combine cognitive activity with activity, namely, define it as:

- the state of readiness for cognitive activity;
- productive activity aimed at the formation of stable cognitive interests and motives;
- an integral part of human mental activity.

In her research, O.O. Denina identifies the concepts of "cognitive activity" and "cognitive activity". According to the scientist, there is more in common between these concepts than there is different. Activity manifests itself through activity. Activity is always characterized by a greater or lesser degree of activity. According to O.O.Denina, cognitive activity is both the goal of activity, and the means to achieve it, and its result. I.A.Chernyshev, considering cognitive activity as the property of a student's personality reveals its content in educational activities through the student's attitude to learning, the desire to master the ways of cognition and the mobilization of volitional efforts to achieve the learning goal. A similar point of view regarding the understanding of cognitive activity as a personal quality is expressed by N.V.Deryabina, V.V.Shchetinina, G.I.Shchukina, etc. determining cognitive activity, as a personality quality that prepares for independent

activity to search for new information, identify problems and search ways to solve them; the ability to use acquired knowledge in new situations to solve problems [17].

T.A. Platonova, A.M. Matyushkin, A.A. Verbitsky believe that cognitive activity is, first of all, internal motivation that encourages a child to activity [18]. V.V.Shchetinina cognitive activity activity connects with creative activity. According to the scientist, cognitive activity manifests itself in an active, intensive study of reality for the realization of acquired knowledge and skills in creative activity. Further analysis of psychological and pedagogical literature revealed signs of cognitive activity:

- attitude to the content, nature of educational and cognitive activity;
- striving for self-knowledge, self-development, self-regulation, self-organization, self-control, self-esteem;
- striving for learning, mental stress and manifestation of strong-willed efforts;
- relentless interest in the search for new knowledge, the desire for search activity;
- creative realization of acquired knowledge and skills.

Thus, the analysis of scientific sources made it possible to identify in understanding the essence of cognitive activity: an integrative quality of personality expressing the desire for knowledge and as an activity Conclusion. Literature analysis has shown that cognitive activity is created directly in cognitive activity; contributes to

Results. Let's consider simple oral tasks for propaedeutics to teaching mathematics through tasks. "When 15 people got off the plane, 44 passengers remained in it. How many people were on the plane?" - some students argue like this: "You can't subtract 44 from 15, so these numbers have to be added up." This reasoning is essentially wrong, but leads to the correct answer.

The above explains why, even before reading the task, students begin to perform some actions with these numbers. This causes errors. Therefore, it is necessary to teach students not to rush into choosing an action. He should understand how important it is to carefully read the text of the task and maybe more than once. Special tasks are required to form this skill.

The texts of the tasks may differ for different reasons. Let's consider them.

According to the structure of the task text. Special work is needed to isolate different designs. Let's focus on this in more detail.

In each task, you can select a condition and a requirement. Let's denote schematically the condition, and the requirement. Then the task can have one of the constructions: 1.2.3:

1 

1) The children went camping. There were 18 boys and 10 girls. How many children went camping?

2) One can holds 32 liters of water, and the second one holds 12 liters less. Find the capacity of two cans together.

3) The children planted 4 courses of raspberries, 5 currant bushes, and as many gooseberry bushes as raspberries and currants together. How many bushes did the children plant in total?

4) There are 8 violins in the orchestra, and 2 fewer violas. When several more instruments were added to the violas, there were 9 of them in the orchestra. How many violas were added?

2. 

5) How many stamps did Bolat give if he gave Sergei 8 stamps, and 5 stamps for Kolya?

6) How many passengers did he fly if there were 25 women on the plane, 15 more men than women, and 10 fewer children than women?

7) How many pencils are in two same boxes, if there are 2 dozen pencils in one?

8) How many wheels do you need for two tricycles?

3. 

9) Mom baked 20 pies. How many pies are left after eating 15 pies at dinner?

10) The store sold 22 boxes of tomatoes. How many boxes of tomatoes were there if there were 8 boxes left to sell?

11) Snow White grew 14a pages and 20 mow her. How many flowers does Snow White have left after she gave 7 flowers to the gomes?

12) When the father was 40 years old, the son was 12. Find the age of the son when the father will be 52 years old.

In order to teach the student to establish a connection between the desired and the data, it is very useful to offer tasks with superfluous and missing data, as well as tasks that do not have solutions for various reasons.

Here are examples of such tasks.

13) There were 30 books on the first shelf, 40 on the second; and 5 more books on the third than on the second. How many books were on the third shelf?

This is a task with extra data. To solve it, need to know the number of books lying on the first shelf. In order to solve it correctly, the student must determine which values are related and which are not. Monitoring show. That those children who inattentively read the problem, focus on numerical data, solve it incorrectly, give the answer: 25 books. They don't see which values are being compared. They do not see the necessary numerical data of -40 books on the second shelf.

14) How many pears in the garden, if there were 35 more trees than apple trees?

This is a task with missing data. Analyzing the text. The student should say that she has no solution. Since there is not enough data in it. It will be very good if he can specify the missing data, for example, the number of apple trees.

15) Aisha was picking berries in the garden. She collected 2 cans of currants and 5 glasses of raspberries. How many berries did Aisha collect?

This problem cannot be solved, since the mass of berries is measured by measures, in this case it is impossible to perform actions on the specified numbers.

This type of task is taught not only to read the test of the task carefully, but also to identify the level of knowledge about the quantities.

16) There were 37 people on the bus. How many people were left on the bus after 40 people got off at bus stop?

This problem cannot be solved either, since the proposed numerical data does not correspond to the meaning of the problem.

If problems with missing and superfluous data are sometimes found in textbooks or sometimes they are made up by teachers themselves, then there are no problems with no solutions in textbooks. And they are needed. They help to realize the existence of the necessary connection between the desired and the data, to understand the rules of operating with terms, to assimilate the fact that there are problems that have no solution.

Systematic observation of the students' robot indicates that their ability to solve such problems is not sufficiently formed. Students often do not know how to identify what they are looking for in the data, establish a connection between the quantities included in the task; compose a solution plan; check the result.

One of the reasons for this situation is that the traditional practice of teaching students to solve text problems does not contribute to the proper extent of the deliberate assimilation of mathematical knowledge provided by the program, the development of thinking and creative activity of students. Often, learning to solve problems is reduced to showing a sample and learning how to solve it, while the main focus is not on the realization of the only goal – getting an answer to the question of the problem. Unreasonably much attention and unjustified time is spent on making a brief record and solving the problem to the detriment of a conscious search for its solution, on a final analysis, on establishing that. What conclusions can be drawn from the completed solution, there is no time left, and this is the most important thing for which the task is being solved.

All this negatively affects the formation of general skills to solve problems, does not pay the necessary attention to the development of students' thinking.

After the task is solved, the answer is received, you should not rush to start another task. It is useful to think, to try to find another way to solve the problem, to comprehend it, to try to pay attention to the difficulties in finding a solution to the problem, to analyze an incorrectly found solution, to identify new and useful information for students.

Such an approach to teaching problem solving will contribute to the formation of techniques for working on a task, elements of creative thinking of students along with the realization of immediate learning goals. The mathematics program provides for the use of various methods of work, and this is reflected in mathematics textbooks. Tasks are offered: solve the problem in a different way. Compose and solve the inverse problem, change the question so that the problem is solved in one or two actions, etc. Each of the techniques is used for a specific educational and developmental purpose. However, such tasks are performed in the case when the corresponding instruction is given

in the textbook. It's nice to think that solving non-standard tasks contributes to the development of mathematical thinking and creative activity of students. Indeed, tasks of this kind arouse children's interest, activate mental activity. They form the independence of thinking. But after all, almost every text task can be made creative with a certain method of teaching the solution.

Discussion. One of these techniques of working on a task is to change the question of the task. This technique is used for various didactic purposes. So, for example, in order to teach students to distinguish simple tasks from composite ones after solving the problem, "There are 8 pencils in one box, and 2 less in the other. How many pencils are there in two boxes?"- the task is proposed: to change the question so that the problem is solved in one action.

When solving the problem: "The mass of a watermelon is 6 kg, and the mass of a melon is 3 kg. What is the total mass of watermelon and melon?"- it is appropriate to ask students to change the question so that the problem is solved by subtraction, division. Changing the questions in the search for answers to them will contribute to the formation of an informed choice of action by which the task is solved, and the ability to solve simple tasks.

An effective technique that develops students' creative activity and thinking is the method of comparing tasks and their solutions.

It is well known that comparison is the basis of all cognition, as well as one of the methods of thinking. The comparison is carried out with a specific purpose, and the work should not end only with the identification of similar and different, but should necessarily end with certain conclusions. Comparison of tasks and their solution makes it possible to become more aware of the relationship between the quantities included in the task, contributes to better assimilation of the idea of a solution and the formation of a conscious approach to its analysis.

Students are greatly interested in composing expressions from the data included in the task condition. Let's explain for example, "Samat and Ayan had money equally. When Samat paid 28 tenge for his purchase, he had 14 tenge left. Ayan has only 9 tg left after the purchase. How much did Ayan pay for her purchase?"

In the process of collective work, the teacher, as a rule, brings the children to the next decision. First, they find out how much money Samat had: 28 +14 = 42, and, and based on the equality ratio ("there was equal money"), they find the answer to the problem question: 42-9 =33. Answer: 33 tg.

Let's consider simple tasks with continuation, developing activation of mental activity. For example, "The boy plucked 8 plums. He gave 3 plums to his sister. How many plums does the boy have left?" After solving this problem, the teacher continues the task: "Then the boy picked up the fallen plums. How many plums did the boy have when he picked up 2 plums?" For the solution of the second task, one composite task can be formulated from two tasks. It is better to formulate the first composite tasks in such a way that the sequence of actions is sufficiently clear to the students. These two tasks can be combined into a composite as follows: "The boy plucked 8 plums, he gave 3 plums to his sister, and then picked up two more fallen plums. How many plums did the boy have after that?" It is useful to write down the solution of this problem first on the blackboard, and then in notebooks:

13) 8-3=5 (drain)

14)5+2=7(drain)

Tasks in two steps for addition and subtraction according to their degree of complexity can be divided into three groups:

Group I - tasks with three data, in which the intermediate action and the action defined by the question of the task are assigned to different subjects: actions in such tasks can be the same or different. (Arman picked 8 nuts, and Aisha picked 13 nuts, but her 4 nuts turned out to be bad. How many good nuts did Arman and Aisha pick together?)

Group II- tasks with two data, and the actions in the intermediate and main question are different. (There were cars and trucks in the garage. There were 12 cars, and 5 fewer trucks. How many cars were in the garage?)

Group III- tasks with two data and with the same actions in the intermediate and main question, and both actions relate to the same subjects.

There are 8 chairs in one room and 4 more chairs in the other. How many chairs are there in two rooms?

Observing one of the basic principles of didactics - to go from simple to complex - it is advisable during the period of acquaintance of students with the solution of composite tasks to adhere to the above sequence of transition from the first group of tasks to the second, and from it to the third. From solving problems in two steps for addition and subtraction, you can soon move on to parsing and solving composite tasks of the second group that are more difficult for children to understand.

Conclusion. The successful development of children's mathematical thinking is facilitated by the search for the simplest and shortest, in other words, a rational way to solve a problem, especially when the problem is non-standard. From time to time, when students are already familiar with solving problems in two steps for addition and subtraction, it is useful to offer such tasks to children, alternating them with the usual ones.

For example: 1. Arman had 13 sheets of paper and Ali had the same number. Arman made drawings on 6 sheets, and Ali on 4 sheets. Which of the boys has more paper left? 13-6 <13-4. This task is introductory. Following it requires a lot of mental effort from children. Armand had 13 sheets of paper. He used up 4 sheets in the figure. Ali had 11 sheets of paper. He also spent 4 sheets of paper on drawings. Which of the boys has more paper left?

Such tasks teach children to approach them meaningfully, develop the ability to compare mathematical expressions, develop their ability to reason logically.

Solving composite tasks is a rather difficult task for many students. The composite task describes a certain life situation. Numerical data that are in a certain dependence on each other are given. Only on the basis of the analysis of the condition, after a series of arguments and conclusions, the student must independently establish an algorithm for solving the problem. In other words, when solving a composite task, the student needs to be able to identify the purpose of simple tasks, with the help of which it is possible to come to an answer to the main question and establish what action can solve these simple tasks. This chain of simple tasks. Expressed in the form of a plan and a record of a number of actions, or in the form of a formula, and will serve as an algorithm for solving the problem. The student must find it on his own. Independent search and development of an algorithm for solving the problem will cause the student a special strain of thought, which is a great difficulty for him.

From here, we can outline the following general procedure for solving problems:

Stage I. Read the task. Remember all the data and the question of the task. Find out all the incomprehensible words and expressions.

Stage II. Highlight the semantic parts in the task, mark the most important words related to the data and the search in each semantic part. Briefly write down the task, make a drawing for it.

Stage III. Find out if it is possible to find what you are looking for in one action. To establish what relationship exists between the data and the desired one. For a composite task, outline a sequence of simple tasks, the solution of which will lead to finding what you are looking for, i.e. outline a solution plan.

Stage IV. Based on the drawn up plan, find the necessary actions, motivating each of them. Make calculations and get an answer to the question tasks, or, guided by the plan, make an expression and find its numerical value.

Stage V. Check the solution and the answer. Think about whether there are other, more rational solutions.

Thus, we have developed a methodology for the development of cognitive activity of younger schoolchildren using simple tasks.

The main purpose of the work was to study the peculiarities of the development of cognitive activity of younger schoolchildren and to develop recommendations for the development of cognitive activity of third graders in educational activities. To achieve this goal, all theoretical and practical tasks were gradually implemented: psychological and pedagogical literature was studied, diagnostic methods were selected that study cognitive activity in primary school students, the results of diagnostics of cognitive activity of younger schoolchildren were analyzed, recommendations for development were developed cognitive activity in primary school students. Theoretical and experimental studies of scientists convince that the activation of the educational process is manifested not only in increasing the volume of necessary information, its density and complexity, but also in creating didactic and psychological-pedagogical conditions for meaningful learning by students, involving them in cognitive activity at the level of not only intellectual, but also personal and social activity. In this paper, to study the cognitive activity of younger the method of observation, questionnaires, individual conversations with students were used to identify the cognitive activity of younger schoolchildren.

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