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THE ROLE OF INTERACTIVE TOOLS IN SOLVING TEXT PROBLEMS AND THE IMPACT ON THINKING

Abstract. Mathematics is an abstract science. Therefore, many children are given with difficulty. Problem tasks for students are flow problems because they require thinking and looking at tasks to pay attention to the fact that good reading and analysis of tasks using diagrams and pictures, disassemblies, drawings. Therefore, teachers strive to illustrate complex mathematical problems with diagrams, drawings. This increases interest in the material being studied. In the last century, creating visual aids for mathematics lessons to explain, she drew illustrations for text problems on paper. opposite movements, task pictures, cars, or animals moved at different speeds. There was not enough in the drawings of one, but the most important thing - the movement. . Using interactive tools, you can show all this and reveal the essence of the task. Also, the use of ICT contributes to the development of spatial imagination, imaginative thinking.

Keywords: ICT, thinking, text math problems, SMART interactive whiteboard, spatial imagination, movement.

Андатпа. Математика - бұл дерексіз , ойлануды талап ететін ғылым. Сондықтан көптеген балаларға пәнді оқу кезінде түсінумен қиындықтар туындайды. Әсіресе оқушыларға арналған мәтіндік есеп тапсырмалар ойлануды талап ететін мәселелер болып табылады, өйткені олар диаграммалар мен суреттер, бөлшектер, сызбаларды қолдана отырып, тапсырмаларды жақсы оқып, талдауға назар аударуды талап етеді. Сондықтан мұғалімдер күрделі математикалық есептерді диаграммалармен, суреттермен суреттеуге, жеткізуге тырысады. Бұл зерттелетін мәселеге оқушылардың қызығушылықтарын арттырады . Өткен ғасырда мұғалімдер мәтін есепті оқушыға жеткізу үшін, түсіндіру үшін , математика сабақтарында түсіндіруге арналған көрнекі құралдар жасап, қағаз бетіндегі мәтінге арналған суреттер салды. Қарама-қарсы қозғалыстарды көрсету, тапсырманың суреттері, автомобильдер немесе жануарлар әртүрлі жылдамдықпен қозғалуын келтірді. Суреттермен қозғалысты жеткізуге тырысты. Ал қазіргі дамыған ғасырда қозғалысты да интерактивті құралдарды қолдана отырып, осының бәрін көрсетіп, тапсырманың мәнін ашуға болады. Интерактивті құрылғыларды қолдану

арқылы кеңістіктік қиялдың, қиялды ойлаудың дамуына ықпал етуге болады.

Түйін сөздер: Интерактивті құрылғы, ойлау, мәтіндік есептер, SMART интерактивті тақта, елестету, қиял, қозғалыс.

Аннотация. Математика - это абстрактная наука, где требует мышление и ум. Поэтому многим ученикам трудно решать текстовые задачи. Текстовые задания для учеников представляют собой текущие задачи, потому что они требуют обдумывания и рассмотрения заданий, чтобы обратить внимание на то, что нужно хорошо прочитать и анализировать задачу с использованием рисунков, схем, разборок задачи. В этой же причине учителя стараются иллюстрировать сложные математические задачи диаграммами, рисунками. Это помогает на повышение интереса к задаче. В прошлом веке, чтобы задачи были понятны и чтобы суть задачи дошла до учеников, учителя для уроков математики, рисовали иллюстрации для текстовых задач на бумаге или на доске. Противоположные движения, картинка задания, машины или животные двигались с разной скоростью. С помощью рисунка можно было передать всю суть задачи, но конечно без движений. А используя интерактивные инструменты, вы можете показать все это и раскрыть суть задачи. Также использование интерактивных инструментов помогает развитию пространственного воображения, образного мышления.

Ключевые слова: Интерактивные инструменты, мышление, текстовые математические задачи, интерактивная доска SMART, пространственное воображение, движение.

21st century, everything is unfolding in a new technology, at a new level. A level of technology where students incorporate interactive tools. The use of new information technologies makes it possible to diversify and combine the means of pedagogical influence on students, strengthen learning motivation and improve the assimilation of new material, make it possible to qualitatively change self-control and control over learning outcomes, as well as timely correct and train teaching and learning activities. Through an interactive whiteboard, you can transfer and understand many tasks, show that with the help of applications in 3d in a wider format, you can find and understand that you need to decide what you need to say in order to break into the topic of mathematics in the world.

According to the analysis of the students' work, it turned out that they would be difficult to manage text tasks and the reasons are in article [1] proved that problems are solved that allow solving problems of certain types of problems and fixing their solutions mechanically, although solving problems requires the first steps: mixing, quick wit; in working with tasks, improvement

requires logical analysis and synthesis, generalization and concretization, revealing the basis, highlighting the main text and discarding the nonexistent, secondary; to cultivate personal qualities - patience, perseverance, will. Mathematics becomes difficult from the fifth grade, when students are already moving to the elementary class and are already passing the base of mathematics. It is difficult for many students to get new knowledge, a new level of problems. The task is that interdisciplinary connections are formed for the development of logical thinking. Students do not think a lot, and tasks require good thinking. This was the most important of my students. In the work of Shestakov [3] on problems and methods of solution, it is necessary to pay attention to the fact that a good reading and analysis of tasks using diagrams and pictures, disassemblies, drawings can be easily understood and solved. Each task in 40 minutes will be difficult to understand. Using interactive tools, you can show all this and reveal the essence of the task and help students with understanding the tasks, and not with their help. In addition, it has been proven that the media draws well and helps with critical thinking and thinking. The manual takes into account the conditions and issues, and then implements the scheme on an interactive whiteboard. The concept of meaning and the disclosure of thinking and logic, the student learns to look at the problem until she knows what they are capable of and what the problem is, and all this can be easily shown through interactive tools and boards. And so, when thinking works well, you can succeed in other subjects. Tasks allow you to apply the knowledge gained in the study of mathematics. Stages of solving problems are forms of development of mental activity.

Makarenko in his article [1] said about interactive tools like demonstration models, operating models, a screen / demonstrate a lot of visual means of transmitting information: boards, posters, diagrams and a multimedia projector, assembly visual aids (magnetic and pin boards), computer monitor, interactive whiteboard. SMART interactive whiteboard that allows you to redraw figures before navigating. This is very convenient, and in the previous work [8] good additional programs for mathematics were also considered and it was proved that interactive tools have a good effect on motivation.

The more convenient method of teaching is the active method, considered in article [4] as a form of interaction between students and teachers, in which the teacher and students interact with each other during the lesson and the students here are not passive listeners, but active participants in the lesson. In the lesson, the main character here is the teacher and the students are on equal footing. He considered the method as the best method for the modern methodology of education and for the solution and consideration of current problems.

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studied. In the last century, creating visual aids for mathematics lessons to explain, she drew illustrations for text problems on paper. Pedestrians, cyclists, insects, animals or cars moved at different speeds. There was not enough in the drawings of one, but the most important thing - the movement.

Using the SMART interactive whiteboard, you can create not just accompaniment for a math lesson, but an interactive model for demonstrating text problems, solving equations and other key topics. The use of interactive models is one of the most effective ways of introducing new information technologies into the educational process. The possibilities of the interactive whiteboard made it possible to show students the tasks of movement: towards each other, in opposite directions, after, with a lag.

When working on text tasks, difficulties arise when reading a large text. Children who read slowly have difficulty understanding the task text. Many children do not know how to think figuratively, they do not understand the movement after or behind the gap, how the distance changes.

Having demonstrated the animated plot of the problem, invite the students themselves to compose the task themselves. This way of demonstrating a task is very effective. Pupils do not just look, but think intensely: what is this task about, who are its heroes, what happens to them? Everyone is trying to come up with their own story of the problem. What type of movement, who are the participants in the movement, simultaneously or not, the movement of the heroes of the task began.

The use of ICT contributes to the development of spatial imagination, imaginative thinking.

The use of ICT enables the teacher to set and implement new developmental tasks in the learning process.

Questions of increasing the effectiveness of training in solving text problems by means of modeling are considered in the works of A.G. Grekulova, K.A. Zagorodnykh, M.T. Katz, I.A. Meshkova, A.Ya. Tsukarya et al. An analysis of these works allowed us to conclude that working with text tasks in modern conditions, the problem of learning how to solve text problems using information and communication technologies has become relevant.

Mathematics is distinguished by the abstractness of objects, and research activity with mathematical content is primarily of a mental nature. Using tasks on the interactive whiteboard, you can make the studied processes that are difficult to understand visible, visual.

Using the capabilities of interactive whiteboards brings a new quality to the educational process. Using the software supplied with the interactive whiteboard, with a few touches of the marker, draw a straight line, triangle, rectangle or circle. If necessary, you can change the size of the figure, turn it over or transfer it to another section of the board. In geometry lessons, having analyzed a problem, you can quickly make a color, neat, clear drawing, and then solve the problem by writing down the solution, highlighting the main thing in

the drawing. Using templates, you can instantly draw a coordinate line, a coordinate plane; show measurement with ruler and protractor. When checking homework, you can give not only the correct answers, but also a sample solution by scanning the correctly completed homework.

Using an interactive whiteboard allows you to increase the effectiveness of teaching students how to solve text problems. A variety of methods of working with an interactive whiteboard enriches the methodological system of the teacher of mathematics, makes the student a co-author of the lesson, involves in the search for ways to solve the problem, creates the conditions for modeling and analysis.

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