METHODOLOGY FOR FORMING CRITICAL THINKING SKILLS IN PRIMARY CLASS STUDENTS

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ABSTRACT

This article reveals the content of the concepts of criticism and critical thinking. It is also dedicated to the methodology of forming critical thinking skills in primary school students.

KEYWORDS: *Critical Thinking, Logical Thinking, Whole Number, Positive Number, Pair Of Numbers, Problem-Based Learning, Information Technology, Multiple Numbers.*

INTRODUCTION

Fundamental reforms are being carried out in our republic today to raise the continuous education system to a new level. In addition, in the process of teaching mathematics, the task of educating an independent, creative thinker is set to ensure the full participation of the learner in the world socio-economic, literary and cultural development. In the implementation of these tasks, it is permissible to further improve the pedagogical technologies used in educational processes. Critical thinking has a special place in this. We can achieve more effective results if problem-based learning technology is used to form students' critical thinking skills in elementary school subjects.

LITERATURE REVIEW

Creative sources of critical thinking go back to ancient times. Translated from Greek, the word "criticism" means isolation, separation. Criticism (criticism (lot)-judgment skill) - evaluation and analysis of a phenomenon related to a field of human activity. It consists of finding and discussing errors.

Critical thinking is a system of judgments aimed at drawing reasonable conclusions by analyzing things and events, and it has the character of critical evaluation. That is, it is analytical thinking based on criticism.

So, although critical thinking is one of the good ways to find an acceptable solution, it is not advisable to use it all the time. A person should not think that he is always right. While this is fun, it also causes us to ignore other perspectives. Not all decisions require critical thinking. It is often better to use elements of "creative thinking" than critical thinking. Critical thinking is a fundamental part of intellectual activity that involves students learning to recognize or develop an argument, use evidence to support that argument, draw reasonable conclusions, and use information to solve problems.

Critical thinking includes such concepts as "evaluation" and "self-evaluation", "criticism" and "self-criticism", "proof" and "refutation", "critical analysis". The culture of critical thinking includes methods and techniques of reliable evidence that are applied in practice. All this helps to develop the personality and form the students' worldview.

DISCUSSION AND RESULTS

The formation of critical thinking skills gives the student the following opportunities:

- Students' thinking process accelerates;

- Students begin to set specific goals for themselves and look for ways to achieve this goal;

- Students begin to acquire the ability to actively communicate with each other;

- Students' interest in learning and learning new information increases;

- Students are actively engaged in the learning process;

- The desire of students to listen and observe the various ideas that arise among them increases;

- Students have the need to boldly express their opinions;

- Students will have the opportunity to process the acquired knowledge and concepts and express their thoughts with them.

That is why it is appropriate to systematically organize the process of teaching primary school students to think critically.

Below are some tasks that require critical thinking and their solutions.

Task 1. Each animal in the given picture represents a positive integer and different numbers correspond to different animals. The numbers under each column represent the sum of the numbers under that column. Find the largest value of the sum of the numbers in the first row.

It is necessary to be based on logic when finding a solution to a given task. Students should pay attention to 2 things.

1. The animals in the picture represent different numbers. That is, the same number does not fit 2 different animals.

2. Let the sum of the numbers in the first row reach the greatest value.

First, it is up to the students to find a solution to the task. That is, everyone has to find it independently. A certain time is set for this. For example, 3 minutes is enough. Then the results of the students are analyzed. The mistakes and shortcomings made by the students in finding the answer are explained. The teacher himself can explain the solution as follows:

We will make a schedule. A pair of positive numbers whose sum is equal to 15 is written in the first column of the table. For example, 5 and 10, 7 and 8, 3 and 12, etc. The second column is filled with a pair of numbers whose sum is equal to 11. Continuing in this way, 2 numbers should be written in the last column so that their sum is equal to 7. Another thing to note is that the numbers must be positive numbers only.

Positive numbers that add up to 15	Positive numbers that add up to 11	Positive numbers whose sum is equal to 3	Positive numbers that add up to 7	
1 and 14	1 and 10	1 and 2	1 and 6	3 and 4
2 and 13	2 and 9	2 and 1	2 and 5	
3 and 12	3 and 8			
4 and 11	4 and 7			
5 and 10	5 and 6			
6 and 9				
7 and 8				

It can be seen from the table that there are 2 pairs of numbers whose sum is equal to 3. That is, in the pair of tiger and chicken, the tiger can be equal to 2 or 1. It's the same with chicken. But if we take into account that the tiger is on the top line in the picture and the sum is the largest, then the tiger should only receive 2. In that case, the numerical value of the chicken will be equal to 1. That is:

Tiger = 2, chicken = 1.

Now, we delete the pairs in which numbers 1 and 2 in the table are involved. Because these numbers are busy. This is because animals represent different numbers.

Positive numbers that add up to 15	Positive numbers that add up to 11	Positive numbers whose sum is equal to 3	Positive numbers that add up to 7
3 and 12	3 and 8	2 and 1	3 and 4
4 and 11	4 and 7		
5 and 10	5 and 6		
6 and 9			
7 and 8			

It seems that only 3 and 4 numbers are left for the dog and turtle in the picture. So the dog is 4 and the turtle is 3. Because the dog is on the top line in the picture. Deleting the rows with numbers equal to 3 and 4 in the table, we get the following:

Positive numbers that add up to 15	Positive numbers that add up to 11	Positive numbers whose sum is equal to 3	Positive numbers that add up to 7
5 and 10	5 and 6	2 and 1	3 and 4
6 and 9			
7 and 8			

From the second column, it can be seen that the rabbit is equal to 6, and the camel is equal to 5. Now we delete the lines with numbers 5 and 6.

Positive numbers that add up to 15	Positive numbers that add up to 11	Positive numbers whose sum is equal to 3	Positive numbers that add up to 7
7 and 8	5 and 6	2 and 1	3 and 4

It is known from the last table that the pair of numbers 8 and 7 corresponds to the pair of cow and horse. Using the findings, we can get the following result:

cow	rabbit	tiger	dog
8	6	2	4

The last question of the assignment was to find the sum of these numbers. So the answer is 20.

Task 2. One animal is sleeping in each of the following baskets. Monkey and fox lie in baskets with the same appearance and pattern, and kangaroo and cat lie only in baskets with the same pattern. In which basket is the puppy sleeping?

1-savat   2-savat   3-savat   4-savat   5-savat

This assignment can be found as follows.

Monkey and fox - look and pattern in the same baskets.

Baskets with the same appearance: first, second, fourth

Baskets with the same pattern: second and fourth

So, the monkey and the fox are in the second and fourth baskets.

Kangaroo and cat-pattern in the same baskets

Baskets with the same pattern: first and third, second and fourth. But the second and fourth baskets are busy. So, the kangaroo and the cat are in the first and third baskets. Then the puppy is in the fifth basket.

Critical thinking issues are mostly found in mathematics. For example, let's see the following example.

Task 3. Fatima and Zuhra thought of different numbers less than 60 but greater than 0. Fatima's number is divided by 5. The number thought by Zuhra is an even number divisible by 7. What is the maximum difference between Fatima and Zuhra's numbers?

At first glance, this example may seem simple. But there is no question that the answer will be wrong due to a small mistake.

The number that Fatima thinks is a multiple of 5. So, one of the numbers 5,10,15,20,25,30,35,40,45,50,55. The number thought by Zuhra is a multiple of 7. That is: 7,14,21,28,35,42,49,56.

If the reader thinks that the number thought by Fatima is equal to 55, and the number thought by Zuhra is equal to 7, this is a mistake. If the number thought by Fatima is 5 and the number thought by Zuhra is 56, then this is correct. Because, in the example, we are talking about the largest value of the difference of the numbers that the girls thought. The difference between fifty-five and seven is forty-eight, and the difference between fifty-six and five is fifty-one.

Answer: 5 and 56

Let's change this example to:

Task 3(a) Fatima and Zuhra thought of different numbers less than 70 but greater than 0. Fatima's number is divided by 5. The number thought by Zuhra is an even number divisible by 7. What is the maximum difference between Fatima and Zuhra's numbers?

That is, let the number the girls think of be greater than 0 and less than 70. In that case, the appearance of the solution will change a little.

The number that Fatima thought - 5,10,15,20,25,30,35,40,45,50,55

The number thought by Venus-7, 14, 21, 28, 35, 42, 49, 56, 63.

In this case, the number thought by Zuhra can be 7 or 63, and the number thought by Fatima can be 5 or 55. The difference between the numbers is as follows:

63-5=58; 55-7=58.

It seems that girls can think of any of the 2 possible numbers. Because the difference of numbers is the same in both cases.

Now let's consider critical thinking as an example of elementary school mother tongue science.

Task 4. Which of the following anagram words is redundant?

A) ANRUT   B) VQUOT   C) ARAG'Q   D) LLAAYK

The letters are arranged irregularly in the words given in the answer option. If the letters are correctly placed in their place, a meaningful word is formed. When words are formed, it is

possible to determine that 3 of them are similar in some features, and one is different. So, we need to clarify the position of the letters.

We make the word "crane" by replacing the letters in option A, "chicken" from option B, "crow" in option C, and "stork" in the last option D. It seems that all of the answers given have pictures of birds. But three of them can fly in the sky, only the chicken does not have the ability to fly in the sky.

So, the correct answer is: chicken.

CONCLUSION

In conclusion, it can be said that the development of critical thinking among students ensures and serves as the basis for not only interest and aspiration in mathematics, but also effective achievements in all subjects. A person who can think critically can independently find his place in society and make a worthy contribution to the development of society.

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