DEVELOPMENT OF MATHEMATICS OF STUDENTS

Do'smurodova Gavkhar Kholboyevna
Teacher of Chirchik State Pedagogical Institute, Tashkent region, **UZBEKISTAN**

ABSTRACT

The article describes the use of interactive technologies in developing students' math abilities. It discusses how to apply the issues presented in the mathematics lessons to developing the skills of future professionals in the socio-economic field.

Keywords: Talent, problem, mathematics, creativity, creativity, ability, mature specialist.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

In recent years, large-scale reforms have been undertaken in the country to create a system of higher education that meets the priorities of socio-economic development and international standards [2].

In our Republic it is essential for social and economic policy, education system through round mature, competent, capable of independent thinking, mind, and devoted great attention to the training of men and women [1].The effectiveness of the ongoing reforms is directly related to the practice of continuous education, including the identification of existing problems in the higher education system and the development of measures to address them promptly. From this point of view, the use of interactive technologies in teaching mathematics in higher education institutions is an effective pedagogical factor that effectively strengthens students' theoretical knowledge on the basis of practical tasks and develops the competencies needed in their future professional activities.

M. S. Ammosova, N. A. Baygazova, V. R. Belomestnova, E. A. Vasilevskaya, L. V. Vasyak, M. L. Gruzdeva, V. A. Dalinger, T. V. Ignateva, E. I. Ismagilova, O. E. Kirichenko, I. G. Mikhaylova, p. X. Mukhametdinova, S. V. Plotnikova, S. A. Rozanova, T. I. According to Fedotova and others, the development of students' abilities in math classes comes in two ways:

1) Emotional knowledge (intuition, perception and imagination);
2) Logical knowledge (understanding, judgment, and conclusion) [4, 71].

Mastering mathematical concepts is carried out on inductive, abstract-deductive methods. Therefore, the criteria for the development of students' abilities, levels and conditions of mastering concepts, as well as criteria for their formation should be considered depending on the content of the material. The basic criteria for mastering concepts in mathematics are: the fullness of the concepts (the number of students' understanding of the concept), the level of understanding, the understanding and interconnection of this concept with other concepts, the use of understanding in solving a particular class of issues, the ability to use them to solve cognitive and practical tasks.

“It is important for each student to gain a clear, conscious and accurate understanding of the concept throughout the course. Understandable practice should be defined and reproduced by students in repeating the description (or description), providing examples that illustrate and clarify the concept, logical analysis of the definition, and other creative work, applying concepts to judgments and judgments. Student surveys are usually conducted to monitor the

understanding of the concept ”[2, p. 45]. Throughout the study, we organized training sessions on the use of various interactive teaching methods and technologies to develop students' talents. In the course of this creative intellectual activity, attention was paid to the development of student thinking, the conscious, profound, and continuous acquisition of the essence, meaning and extent of concepts. For this purpose, small groups were instructed to fill in an interactive table "Thinking Analysis" to identify students' abilities. Each student was asked to explain the meaning of a particular concept. It took 6 minutes to complete the content of the insights (Figure 1).

Figure 1. Fill in the interactive table "Thinking analysis" by students

No.	MATHEMATICAL CONCEPTS	CONCLUSION M SUBMISSION
1	Reproduction by Tranxenberg method	
2	Euclidean algorithm	
3	Comparisons	
4	Sophism and paradoxes	
5	Dirixle principle	
6	The concept of Rebus	

At the end of time, the 6 completed insights will be presented to the experts with a summary of the concepts. The experts will exchange the group answers, check the criteria and publish the scores for each group . The group will have 10 minutes to discuss the answers .
The teacher illustrates the example of the concepts presented in the table. Then, groups are given the option examples on cards to work with . This activity will take about 7 minutes. For example,

$$\sqrt{1803649} = 1343.$$

First we divide the number under the root into two parts. In the calculation process, the root is 1, so we divide by 1, and divide by 1 and divide by 1. And we will write this number one after the equation. Going to the next digit, we subtract both numbers 80 after divisibility 0. We add one number to the left and write it to the left. We can choose the number that follows two numbers so that it is a two-digit number that must be less than 80 and multiplied by the number chosen. So we chose three numbers. And multiply 23 by 3 and subtract 69 from 80. We get 36 on the back of the difference 11. We add 3 repetitions to the left after 1 to the right. Add 23 to 3 on the left and then subtract the number 26 from 4, since multiplying 264 by 4 will be 1056. We'll bring them up to 80 and the next step 49 after 80. We add 4 repetitions to the left of the number 13 after the right 13. If we multiply 2683 by 3, the multiplication will be 8049. And when we reach the last stage, that is, dividing 8049 by 8049, the difference is 0. We will write the recurrent number 3 on the left after 134. That is

	$\sqrt{1\uparrow 80\uparrow 36\uparrow 49} = 1343$
23	-1
+3	0 80
264	- 69
+ 4	1136
2683	- 1056
* 3	8049
	- 8049
	0

So we checked that $13432^2 = 1803649$ using the square root root. $\sqrt{1803649} = 1343$.
When the time is up, group responses will be passed on to other groups, and when the experts point to the benchmark, the group will be evaluated and evaluated by the criteria.
Students write several examples on a blackboard with the help of a teacher. The talks will take about 10 minutes to resolve.
If there are no questions about the examples, replace each group member with another group member (5 minutes) before distributing the last task. Each group of experts will distribute 3 different case studies.

SMALL CASE QUESTIONS

1. What is Tranxenberg Method of Reproduction? What are the advantages of reproduction in the social and economic sphere by the Tranxenberg method? Give examples.
2. What is the Euclidean algorithm? What are the conveniences of computing? Give examples.
3. What is a comparison? Advantages of logical solutions? Give examples.
4. What do you mean by sophism and paradox? In developing a student's mental intelligence ...? Give examples.
5. What can you say about the Dirixle principle? What is Advancement in Mathematics and Informatics? Give examples.
6. What is a Rebus concept? How important is it to children's logical thinking? Give examples.

5 minutes to discuss. The answers to all the questions should be based on interesting and easy to understand frames and should be presented on A3 paper. After each group has presented the answers to the questions, the other groups will be invited to hear and evaluate and supervise it.

The scores are calculated by the experts, adding the scores of each group to each task.
According to the specialists of the methods of teaching mathematics: BG Gornenko, AA Stolyar, GI Sarantsev, abstract, algorithmic, logical, flexible, originality in teaching mathematics develops students' creative abilities. Students are encouraged to provide a variety of content assignments to develop their math abilities. To develop students' math abilities, it is desirable to present, develop, or create a textbook that develops creativity based on a presentation made at Power Point, to develop practical tasks based on lecture material, to develop a crossword puzzle, to solve a mathematical problem based on a graphic organizer. .

In order to complete the subject, students will learn the content of the topic, learn basic information, analyze it correctly, as well as develop math and oral, reading and editing skills. Students will analyze presentations created under the guidance of a teacher and discuss the key issues and challenges they face when editing materials.

The culture of logical thinking and the culture of speech play an important role in the development of gifted students. Practice shows that the extra time spent on a comprehensive, in-depth study and understanding of the new concept will be offset by the easier and more efficient use of the latter.

“Work on mastering mathematical concepts based on all types of repetition will continue. The emphasis is not on repetition of definitions, but on different types of creative work of students on concepts. In summarizing repetition exercises are useful in classifying concepts and constructing their "genealogy". [4]

Such examples, on the one hand, better emphasize the essential elements of definitions and concepts that are accepted in a mathematics course, and on the other, expand students' thinking.

The process of teaching mathematics in higher education places high demands on the intellectual activity and independence of students in their learning activities. Their age is an ideal time for developing mathematical abilities. Under the influence of the organization of educational activity, characteristic of higher education, the nature of mental activity of students and the nature of mental work significantly change.

Higher education institutions create the conditions for students to master the concepts they have learned during lectures, and their perceptions as knowledge.

Students acquire mathematical objects, mathematical examples and problem solving methods in the study of processes. In this process, students are required to use appropriate mathematical concepts to understand, understand, and apply practical actions.

From mathematics methodology, each example or problem helps a student to master a particular mathematical theory. Therefore, the process of solving an example or problem requires a certain number of mathematical concepts to be understood. In this context, we have organized the process of mastering mathematical concepts in a single course or one phase of the pre-acquisition phase of the students' mathematical skills and competencies based on the amount of hours devoted to math practice.

Students may be asked to create a cluster of insights on the development of gifted students.
Productive issues aim to teach students how to apply students' knowledge independently, rather than strengthening mathematical knowledge. As a result, knowledge becomes a tool for the development of an individual, not just a result. Productive issues for students are more interesting and more important than reproductive issues.
The productive problem solving is implemented in the following stages:

1. Understanding the issue (what to do).
2. Finding the necessary information (text, pictures, etc.).
3. Changing the form of information according to the issue (finding the cause, separating the basic information, evaluating, etc.).
4. “In my opinion…”, “because…”, “First,…”, “Second,…” and so on. form a response using the words.
5. Independent complete answer (story) without relying on the teacher's guiding questions.

Using productive issues enables you to develop the following skills:
acquisition of new knowledge based on existing experience;
apply skills in unusual situations;
independent choice and adaptation of the methods necessary for the solution of the problem, finding of different ways of solving it;
work with various types of information, their adaptation, evaluation and change;
critical thinking, the choice of optimal ways of action, reflection.

Thus, it is important to use a variety of disciplinary methods, to organize non-traditional lectures, to organize the Olympiad, advisory lessons for students to develop their talents. This creates a high level of motivation in students.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan “On the strategy of further development of the Republic of Uzbekistan” № UP-49-47. February 7, 2017
2. President of the Republic of Uzbekistan Mirziyoev's Address to the Oliy Majlis on the Most Important Priorities for 2019 December 28, 2018
3. Resolution of the President of the Republic of Uzbekistan " On Measures for Further Development of Higher Education" April 20, 2017, №. PP-2909.
4. Рассоха, Е. Н. К проблеме развития математических способностей студентов технических специальностей / Е. Н. Рассоха, Л. М. Анциферова // Вестник Оренбургского гос. ун-та. - 2010. - № 9. -С. 189-194.
5. Ветрова, В. Т. Сборник физических задач по общему курсу высшей математики : учеб.пособие для вузов / В. Т. Ветрова. - Минск :Выш. шк., 1997. - 202 с.
6. Шершнева, В. А. Сборник прикладных задач по математике для студентов инженерных вузов / В. А. Шершнева, О. А. Карнаухова. - Красноярск :Сиб. федер. ун-т, 2008. - 204 с.
7. Kiryushin , I. V. Mathematical analysis of theoretical mathematics and physics in physics / I. V. Kiryushin // Vestsí BDPU. Seria 3. - 2010. - №. 2. - S. 34-39.