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FORMATION OF MATHEMATICAL LITERACY OF PRIMARY SCHOOL STUDENTS THROUGH INTEGRATION

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Abstract:

This article describes the development of mathematical literacy of primary school students through extracurricular activities and their interests.

Keywords: Mathematics, method, mathematical concepts, communication, volume, pedagogy, teaching, culture.

ФОРМИРОВАНИЕ МАТЕМАТИЧЕСКОЙ ГРАМОТНОСТИ УЧАЩИХСЯ НАЧАЛЬНЫХ КЛАССОВ ПУТЁМ ИНТЕГРАЦИИ

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Аннотация:
В данной статье рассмотрено развитие математической грамотности учащихся младших классов посредством внеклассной деятельности и их интересов.

Ключевые слова: математика, метод, математические понятия, коммуникация, объём, педагогика, преподавание, культура.

The development of mathematical literacy develops the general speech culture of the student and forms rational human speech communications in modern society. In addition, as long-term experience shows, the higher the level of study and teaching of mathematics, the more there are various aspects that reflect a positive impact on the character of primary school students. The development of mathematical literacy of primary school students through extracurricular activities and their interests. For example: in math circles, during extracurricular time, a teacher can develop mathematical literacy by conducting classes focused only on reading and writing, the correct use and distinction of concepts. The attitude of students to the subject is determined by various factors: personal and subject characteristics, as well as the method of teaching. Given these features, it is important to organize extracurricular activities in mathematics in such a way as to increase students' interest in the subject.

A mathematical concept is a logically expressed thought about an object, a phenomenon that has significant features.

Mastering the concepts of the taught science forms the basis of teaching. A mathematical concept is an expression of certain types and relations to reality in our thinking. The concept represents only the general and essential features of a real object or phenomenon. If these objects or phenomena really represent reality, then this will always be true. One of the most effective ways to define concepts is to indicate the characteristics of the species and the genus to which the defined concept is included in judgments about species. The schematic form of this approach is: the defined concept is a specific feature – a family.

For example: A rhombus (a certain concept) is a parallelogram (figure) with all equal sides (characteristic). Mathematical concept: it has content and scope.

The content of the concept is a set of essential features of the objects included in this concept. The scope of a concept is a set of subjects to which this concept applies. For example: the content of the concept of "triangle" is three sides, three vertices and three corners, and the volume is the totality of "all possible triangles". Considering mathematical concepts taking into account their peculiarities, it is advisable to note that mathematical literacy is closely related to the ability to correctly distinguish each concept.

Since ancient times, the role of mathematics has increased, its contribution to the rapid development of science and technology, and its importance in the education of young people. However, we cannot but note the fact that, depending on the level of intellectual culture of each person, as mentioned above, questions arise about the need for mathematics. So, first of all, let's focus on the main goals of teaching mathematics at school:

1) Mathematics is an alternative concept of science. That is why mathematics is considered the logical basis of all sciences.

2) Mathematics, first of all, forms, develops and strengthens the culture of competent mental activity of students;

3) The student has the ability to master "mathematical thinking" by forming the ability to "mathematical literacy" (oral and written);

4) Mathematics helps to correctly perceive and understand new information and various phenomena occurring in the world;

5) Mathematics has a moral, aesthetic and ethical educational significance for the development of the personality of the younger generation.

Currently, mathematical knowledge and skills occupy a special place in the formation of skills and abilities for critical thinking, in understanding the ideas of mathematical modeling, in mastering mathematical literacy as a universal global literacy. In the formation of mathematical literacy, special attention should be paid to the culture of mathematical speech and writing, the description of the environment and its laws, and its study as the main means for students to acquire a scientific worldview about the world. Mathematical literacy should be considered as the minimum requirement necessary for students to be able to read, write and retell mathematical texts, to understand the content of what is written. The main component of the development and formation of mathematical knowledge among students is the need to create a full-fledged and effective learning activity in a special, focused way.

Another feature of mathematical literacy is interdisciplinary communication. Using the connection with other subjects in mathematics lessons, it is necessary to apply pronunciation and writing methods. In the history of pedagogy, interdisciplinary communication is considered one of the main aspects of pedagogy studied since ancient times. The problem of interdisciplinary communication in the development of pedagogical thinking in school practice worried many progressive teachers. It should be noted that the doctrine of the interrelation of subjects appeared in the middle of the 17th century and was continued in the works of many foreign and Russian teachers. The great teachers Ya.A. Komensky, P.G. Pestalozzi, K.D. Ushinsky, L.N. Tolstoy were especially concerned about this issue.

N.K. Krupskaya revealed in many of her works and articles the theoretical and practical significance of the problems of interdisciplinary communication.

Recently, the concept of interdisciplinary communication has been introduced into the scientific and pedagogical literature in a new meaning, which should be understood as a set of knowledge, skills and beliefs of human psychological thinking.

The use of interdisciplinary communication in the educational process is relevant for solving the following tasks: it allows you to apply theoretical knowledge in practice, to educate a person with a broad understanding of various fields of science. Currently, in our country, when studying mathematics, conditions are being created for teaching students and students to develop their cognitive activity and mathematical literacy.

REFERENCES

1. Narimbetova, Z. A., & Asqarova, N. J. (2022). AXBOROT KOMPETENTLIKNI BO'LAJAK O'QITUVCHILARDA RIVOJLANTIRISH TIZIMI. *European Journal of Interdisciplinary Research and Development*, *10*, 180-188.
2. Наримбетова, З. А., & Муродова, Ш. Р. (2022). АКТУАЛЬНОСТЬ И РОЛЬ СОВРЕМЕННЫХ ИННОВАЦИЙ ДЛЯ ФОРМИРОВАНИЕ МОЛОДЫХ СПЕЦИАЛИСТОВ. *Academic research in educational sciences*, *3*(6), 922-928.
3. Наримбетова, З. А., & Абдиримова, И. К. (2021). ЛОЙИҲА ТАЪЛИМИНИНГ ХУСУСИЯТЛАРИ ВА АҲАМИЯТИ. *Экономика и социум*, (5-2 (84)), 1025-1031.
4. Narimbetova, Z. A. (2021). Matematika darslarida o 'quvchilar ijodkorligini rivojlantirishda axborot-kommunikatsion texnologiyalarning o 'rni. *Xalq ta'limi*, 131-134.
5. Narimbetova, Z. A. (2021). MAKTABDA IQTIDORLI BOLALAR BILAN ISHLASH XUSUSIYATLARI. *Экономика и социум*, (4-2 (83)), 920-923.
6. Narimbetova, Z. A. (2021). CONTROL-ONE OF THE DIDACTIC OBJECTIVES OF MATHEMATICAL PROBLEMS. *Экономика и социум*, (5-2), 866-870.
7. Narimbetova, Z. (2021). Use of new technologies in teaching primary school mathematics. *Экономика и социум*, (4-2), 916-919.
8. Кадирова, З. З. (2019). Психолого-педагогические проблемы изучения понимания учебно-воспитательных ситуаций учителем. Профессионализм педагога: компетентностный подход в образовании, 1(1), 6-11.
9. Isayeva, Y. (2023). Relevance of studying national character. *Mental Enlightenment Scientific-Methodological Journal*, *4*(05), 95-100.

10. Abdubokievna, T. I. (2020). Chemicals used in cotton agrocenosis and their harmful effects on the environment. International Engineering Journal For Research & Development, 5(6), 4-4.
11. Elamanovna, D. M. (2021, March). Works and environmental education. *Archive of Conferences*, 17(1), 79-80.
12. Narimbetova, Z. A. (2021). FEATURES OF WORKING WITH SMART CHILDREN IN THE SCHOOL. *Экономика и социум*, (4-2), 920-923.
13. Narimbetova, Z.A., ICT competence of teachers in the works of modern domestic and foreign researchers. Philosophical Readings, 13(4), 1900-1904.
14. Наримбетова, З. А. (2021). ОБУЧЕНИЕ ПРИЕМАМ САМОЦЕНИВАНИЯ НА УРОКАХ МАТЕМАТИКИ. *Экономика и социум*, (5-2 (84)), 1008-1024.

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