INTERNATIONAL MULTIDISCIPLINARY JOURNAL FOR RESEARCH & DEVELOPMENT
SJIF 2019: 5.222 2020: 5.552 2021: 5.637 2022:5.479 2023:6.563
eISSN 2394-6334 https://www.ijmrd.in/index.php/imjrd Volume 11, issue 02 (2024)

HISTORY AND DEVELOPMENT OF MATHEMATICS TEACHING METHODOLOGY IN UZBEKISTAN

Rahmatjonzoda Ahrorjon Ahmad o‘g‘li

Teacher of FSU

Abstract: This article presents the recommendations of scientific research on the history and development of mathematics teaching methodology in Uzbekistan. Also, in the article, the scientific proposal and practical recommendations formed by the author on this issue were also expressed.

Key words: Arithmetic, numbers, grammar, decimal system, algebra, geometry, induction, deduction, analysis, synthesis, abstraction, analogy, classification, systematization.

Mathematics is an ancient and constantly modern science. It has been developing and progressing since the beginning of human society. Nowadays, there is no field in which mathematics has not penetrated. In the development of mathematics at this level, of course, the works of our ancestors, including Al-Khorazmi, Beruni, Al-Farghani, Ali Kushchi, Al-Koshi, Ibn Sina, Ulugbek, etc. We acknowledge that their services are great.

It is necessary to tell our students, who are our future heirs, that the scientific wealth created by our ancestors over the centuries, the works created by them are preserved and studied by our nation and state, and we must regularly introduce them to the scientific heritage of scholars. After all, as A. Kasiri said, "It is a good thing to return to Mozi and find work."

As long as the history of the emergence of the science of mathematics goes back, the history of studying and teaching this science is as long. How was the teaching of mathematics in the madrasahs of Central Asia from the 15th to the 20th centuries? This question was answered to a certain extent in the book of S.A. Akhmedov entitled "Mathematics development in Central Asia and the history of its teaching" (Teacher - 1977). According to it, the Madrasa was considered the highest religious school of that time. In madrasa, secular knowledge is given along with religious knowledge. In the madrasa, although there is no fixed program and curriculum, the subjects are taught based on a long-standing procedure. Arabic grammar, religious books in Arabic, medicine, geography, astronomy and arithmetic, algebra and geometry under the name of "Khisab" were also taught there. The scientific works of medieval Eastern mathematicians were used as a program (curriculum) in madrasas in their improved form. For example, Khorezmi, after describing the decimal system of writing numbers in his works, started with doubling and halving numbers and finished with rooting, and this was taught in the madrasa as well. The rest of the topics are presented in the order of the works written by Khorezm and later medieval mathematicians.

Teaching of mathematics in madrasahs was carried out on the basis of the given information. The last part of the mathematics taught in the madrasa is the large-scale "Distribution of Inheritance", which applies the sciences of arithmetic, algebra and geometry, based on the works of medieval Eastern mathematicians, according to the norms of the Sharia, between the heirs. complex issues of a specific nature are resolved under different names regarding the distribution of property. One of the main goals of teaching mathematics in the madrasa is to train experts who know the scientific and practical theory of inheritance distribution, such an expert is called "Farozi Khan" (Distributor of Inheritance). Trained farazikhans were engaged in the distribution of inheritance in local court (treasury) bodies.

In its time, the form of teaching mathematics in the madrasa, which was considered a higher type of educational institution, was mainly a lecture. After explaining a new topic to the students, the teacher gives them an assignment to work independently on this topic in the Madrasah room for a certain period of time. The teacher checks that it has been completed, gives a grade, and then a new topic is taught. Independent works are more practical and boring for students: and take up a lot of their time. For example, successive doublings of one continue to 264, and vice versa, successive halvings starting from 264 are continued until one occurs. Or, a large number of examples of extracting exact and approximate (second, third, fourth and any exponent) roots of 20 or more digit numbers are solved.

Mathematics develops students' will, concentration, ability and activity, imagination, moral qualities of a person (perseverance, striving for a clear goal, creative, independent, responsible, hardworking, disciplined and critical thinking) and their own vision. and develop skills to defend their beliefs based on evidence.

In the process of studying mathematics, the methods and methods of human thinking include induction and deduction, generalization and clarification, analysis and synthesis, abstraction, analogy, classification and systematization.

When studying mathematics, students acquire the skills to express their thoughts and judgments clearly and completely, succinctly and meaningfully, to make mathematical records comprehensible, accurate and complete.

REFERENCES:

1. Mahpuza, A., & Rahmatjonzoda, A. (2022). THE USE OF MODERN PEDAGOGICAL TECHNOLOGIES IN MATHEMATICS LESSONS IN ELEMENTARY SCHOOL. *European International Journal of Multidisciplinary Research and Management Studies*, *2*(11), 213-217.
2. Mahpuza, A., Rahmatjonzoda, A., & Zilola, X. (2022). ATTITUDE TO MATHEMATICS IN PRIMARY SCHOOL STUDENTS. *European International Journal of Multidisciplinary Research and Management Studies*, *2*(11), 208-212.
3. Ra'noxon, S., Mahpuza, A., & Rahmatjonzoda, A. (2022). THEORETICAL FOUNDATIONS FOR THE DEVELOPMENT OF LOGICAL THINKING WITH THE HELP OF INNOVATIVE TECHNOLOGIES. *Web of Scientist: International Scientific Research Journal*, *3*(11), 881-885.
4. Ahrorjon, R. (2021). Initial Pedagogical Processes in The Direction of Primary Education Students to The Profession. *Texas Journal of Multidisciplinary Studies*, *2*, 85-87.
5. Rahmatjonzoda, A. (2023). TA'LIM JARAYONIDA IBRATLI HIKOYALARNING O 'RNI. *Инновационные исследования в современном мире: теория и практика*, *2*(17), 190-191.
6. Raxmatjonzoda, A. (2023). METHODOLOGICAL BASIS OF MATHEMATICS TEACHING METHODOLOGY. *Modern Science and Research*, *2*(10), 973-984.
7. Rahmatjonzoda, A. (2023). INITIAL PEDAGOGICAL PROCESSES IN THE DIRECTION OF PRIMARY EDUCATION STUDENTS TO THE PROFESSION. *Modern Science and Research*, *2*(10), 1023-1034.
8. Ahmadjon o'g'li, R. A., & Abdulaxatovna, X. R. (2023). MATEMATIKA FANINING CHET TILINI O 'QITISHDAGI AHAMIYATI. *TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI*, *3*(10), 253-256.

9. Rakhmatdjonov Shokhjahon Dilshodbek o‘g‘l //THE ROLE OF PHYSICAL CULTURE IN PROVIDING THE PSYCHOLOGICAL HEALTH OF THE ATHLETE// INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. International scientific online conference. Canada. Part 2, 23.01.2022. 1-3
10. Raxmatjonov Shoxjahon Dilshodbek o‘g‘li //SPORTCHI PSIXOLOGIK SALOMATLIGIGA TA’SIR ETUVCHI OMILLAR// GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ). Vol. 10, Issue 11, Nov.(2022). 117-121 pages.
11. QURBONOVA Saida Miralimjanovna, RAXMATJONOV Shoxjahon Dilshodbek o‘g‘li //MAMLAKATIMIZ PSIXOLOGLARI ISHLARIDA SHAXSLARARO MUNOSABATDA MUOMALA MUAMMOSINING TALQINI// Journal of Pedagogical and Psychological Studies. Vol. 1. № 5, (2023). 99-103 pages.
12. Raxmatjonov Shoxjahon Dilshodbeko‘g‘li //SPEECH ISSUES IN PSYCHOLINGUISTICS// IQRO JURNALI № 2. 04.2023. 503-511 betlar.
13. Raxmatjonov Shoxjahon Dilshodbek o‘g‘li, Vosiljonov Azizbek Boxodirjon o‘g‘li //XORIJ PSIXOLOGLARINING ISHLARIDA SHAXSNING TADQIQ ETILISHI// INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. Vol. 1. № 12, 2022. 39-47 pages.
14. Raxmatjonov Shoxjahon Dilshodbek o‘g‘li //TALABALARDA TOLERANTLIKNI RIVOJLANTIRISH – IJTIMOIY PSIXOLOGIK MUAMMO SIFATIDA// International Journal of Economy and Innovation. Volume: 30. 2022. 66-70 pages.
15. Rakhmatdjonov Shokhjahon Dilshodbek o‘g‘li //PSYCHOLOGICAL ASPECTS OF THE SPORTSMAN PERSONALITY DURING COMPETITIONS// IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI. Vol. 2 No. 11 (2022). 215-221 betlar.
16. Raxmatjonov Shoxjahon Dilshodbek o‘g‘li //Motiv Va Motivatsiya Muammosining Jahon Va Mahalliy Psixologlar Tomonidan Tadqiq Etilganligi// American Journal of Social and Humanitarian Research, Vol. 3 No. 11 (2022). 256-259 pages.
17. Raxmatjonov Shoxjahon Dilshodbek o‘g‘li //TOLERANTLIK SHAKLLANAYOTGAN SHAXS MODELINING TAVSIFI// International scientific journal «MODERN SCIENCE AND RESEARCH». VOLUME 2 / ISSUE 5 /2023. 761-764 pages.
18. Raxmatjonov Shoxjahon Dilshodbek o‘g‘li. (2023). PSIXOLOGIYADA MOTIVATSIYA TURLARI, NAZARIYALARI VA TAHLILI. Научный Импульс, 1(10), 665-670.
19. Raxmatjonov, S. (2023). DESCRIPTION OF THE PERSONALITY MODEL FOR FORMING TOLERANCE. *Modern Science and Research*, *2*(5), 761-764.Dilshodbek o‘g‘li R. S. TALABALARDA TOLERANTLIKNI RIVOJLANTIRISH–IJTIMOIY PSIXOLOGIK MUAMMO SIFATIDA //Gospodarka i Innowacje. – 2022. – Т. 30. – С. 66-70.
20. Dilshodbek o‘g‘li, R. S., & Boxodirjon o‘g‘li, V. A. (2022). XORIJ PSIXOLOGLARINING ISHLARIDA SHAXSNING TADQIQ ETILISHI. *INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION*, *1*(12), 39-47.
21. Dilshodbek o‘g‘li, Raxmatjonov Shoxjahon, and Vosiljonov Azizbek Boxodirjon o‘g‘li. "XORIJ PSIXOLOGLARINING ISHLARIDA SHAXSNING TADQIQ ETILISHI." *INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION* 1.12 (2022): 39-47.
22. Dilshodbek o‘g‘li R. S., Boxodirjon o‘g‘li V. A. XORIJ PSIXOLOGLARINING ISHLARIDA SHAXSNING TADQIQ ETILISHI //INNOVATIVE DEVELOPMENTS AND RESEARCH IN EDUCATION. – 2022. – Т. 1. – №. 12. – С. 39-47.
23. Dilshodbek o‘g‘li, R. S. (2023). SPEECH ISSUES IN PSYCHOLINGUISTICS. *IQRO JURNALI*, *2*(2), 503-511.
24. Dilshodbek o‘g‘li, Raxmatjonov Shoxjahon. "SPEECH ISSUES IN PSYCHOLINGUISTICS." *IQRO JURNALI* 2.2 (2023): 503-511.