

MATEMATIKA O'QITISH METODIKASINING TARIXI, TARAQQIYOT BOSQICHLARI HAMDA RIVOJLANISH YO'LLARI

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Annotatsiya. Matematika fanining paydo bo'lish tarixi qanchalik uzoq davrlarga borib qadalsa, ushbu fanni o'rganish, uni o'qitilish tarixi ham shu qadar uzoqdir.

Kalit so'zlar: metodika, intilish, ijod, rivojlanish.

ИСТОРИЯ МЕТОДИКИ ПРЕПОДАВАНИЯ МАТЕМАТИКИ, ЭТАПЫ РАЗВИТИЯ И ПУТИ РАЗВИТИЯ

Аннотация. Насколько глубока история возникновения науки математики, настолько же длинна история изучения и преподавания этой науки.

Ключевые слова: методология, стремление, творчество, развитие.

HISTORY OF MATHEMATICS TEACHING METHODOLOGY, STAGES OF DEVELOPMENT AND WAYS OF DEVELOPMENT

Abstract. 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.

Key words: methodology, aspiration, creativity, development.

Matematika so'zi qadimgi grekcha - mathema so'zidan olingan bo'lib, uning ma'nosi «fanlarni bilish» demakdir. Ma'lumki, matematik fanlarning sohaları turli-tuman bo'lishiga qaramay, ular umumiylik belgisi ostida bitta predmetga birlashtirilgan. Bu umumiylik belgisini quyidagi matematikaga berilgan ta'rifdan yaqqol ko'rish mumkin. Matematika faning o'rganadigan narsasi (obyekti) materiyadagi mavjud narsalarning fazoviy formalari va ular orasidagi miqdoriy munosabatlardan iborat. "Metodika" so'zi yunoncha "metod" yoki "usul" so'zidan olingan. Matematika o'qitish metodikasi (uslubiyati) fani deb, jamiyat tomonidan qo'yilgan ta'lim maqsadlarga mos ravishda matematik o'qitish usullarini, qonuniyatlarini uning ma'lum rivojlanish darajasida o'rganadigan va tadqiq etadigan pedagogika- ning bo'limiga aytiladi. Matematika metodikasi pedagogika va didaktika fanining asosiy bo'limlaridan biri bo'lib, jamiyatimiz taraqqiyoti darajasida ta'lim maqsad- lariga mos keluvchi matematikani o'qitish, o'rganish qonuniyatlarini o'rganadigan mustaqil fandir. Matematika metodikasi haqidagi tushuncha birinchi bo'lib, shvedsariyalik pedagog matematik G.Pestalotsining 1803-yilda yozilgan "Sonni ko'rgazmali o'r- "Science and Education" Scientific Journal / ISSN 2181-0842 May 2022 / Volume 3 Issue 5 www.openscience.uz 958 ganish" asarida bayon qilingan. Matematika fani qadimiy va doimiy navqiron fandir. U kishilik jamiyati paydo bo'lgandan boshlab rivojlanib, taraqqiy etib kelmoqda. Hozirgi kunda biron bir soha yo'qki, unga matematika kirib bormagan bo'lsin. Matematikaning bu darajada yuksalib borayotganligida, albatta, o'tmish ajdodlarimizning, shu jumladan Al-Xorazmiy, Beruniy, Al-Farg'oni, Ali Qushchi, Al-Koshiy, Ibn Sino, Ulug'bek va x.k. larning ham xizmatlari buyuk ekanli'ini e'tirof etamiz. Ota-bobolarimiz tomonidan asrlar davomida yaratilgan ilmiy boyliklar, ular tomonidan yaratilgan asarlar xalqimiz, davlatimiz tomonidan asrab avaylanib, saqlanib o'rganilib kelinayotganligini kelajagimiz vorislari bo'lgan o'quvchilarimizga ham aytish, allomalarning ilmiy meroslari bilan ularni muntazam tanishtirib

borishimiz shartdir. Zero, A. Kasiriy aytganidek, -“Moziyga qaytib ish ko’rishlik xayrlikdir”. Matematika o’quvchilarda iroda, diqqatni to’plab olishni, qobiliyat va faollikni, tasavvurini, shaxsning axloqiy sifatlarini (qat’iyatli, aniq maqsadga intilish, ijodkor, mustaqil, ma’suliyatli, mehnatsevar, intizomli va tanqidiy fikrlash) 9 hamda o’zining qarash va e’tiqodlarini dalillar asosida himoya qila olish ko’nikmalarini rivojlantiradi. Matematikani o’rganish jarayonida inson tafakkurining usul va metodlari qatoriga induksiya va deduktiya, umumlashtirish va aniqlashtirish, analiz va sintez, abstraktsiyalash, analogiya, tasniflash va sistemalashtirish kabilar qo’shiladi

Matematika fanining paydo bo’lish tarixi qanchalik uzoq davrlarga borib qadalsa, ushbu fanni o’rganish, uni o’qitilish tarixi ham shu qadar uzoqdir. XV asrdan XX asrgacha O’rta Osiyo hududi madrasalarida matematikani o’qitish qanday amalga oshirilgan? Bu savolga S.A.Axmedovning —O’rta Osiyoda matematika tarakkiyoti va uni o’qitish tarixidan (—O’qituvchi- 1977 y) nomli kitobida ma’lum darajada javob berilgan. Unda keltirilishicha Madrasa o’sha davrning oliy diniy maktabi hisoblangan. Madrasada diniy bilimlar bilan birga dunyoviy bilimlar ham berilgan ekan. Madrasada, qat’iy dastur va o’quv rejasi bo’lmasada, mavzular uzoq yillik tartib asosida o’qitilgan. Unda arab tili grammatikasi, arab tilidagi diniy kitoblar, tibbiyot, geografiya, astronomiya va —Xisob nomi bilan arifmetika, algebra hamda geometriya ham o’qitilgan. O’rta asr sharq matematiklarining ilmiy asarlari takomillashgan ko’rinishida madrasada dastur (o’quv-reja) tariqasida qo’llanilgan. Masalan, Xorazmiy o’zining 8 asarlarida sonlarni yozishning o’nli sistemasini bayon etgandan keyin sonlarni ikkilantirish va yarimlatishdan boshlab, ildiz chiqarish amali bilan tugatgan bo’lsa, madrasada ham shu tartibda o’qitilgan. Qolgan mavzular ham Xorazmiy va undan keyingi o’rta asr matematiklari yozgan asarlar tartibida bayon etilgan. Matematika fanining paydo bo’lish tarixi qanchalik uzoq davrlarga borib qadalsa, ushbu fanni o’rganish, uni o’qitilish tarixi ham shu qadar uzoqdir. XV asrdan XX asrgacha O’rta Osiyo hududi madrasalarida matematikani o’qitish qanday amalga oshirilgan? Bu savolga S.A.Axmedovning —O’rta Osiyoda matematika tarakkiyoti va uni o’qitish tarixidan (—O’qituvchi- 1977 y) nomli kitobida ma’lum darajada javob berilgan. Unda keltirilishicha Madrasa o’sha davrning oliy diniy maktabi hisoblangan. Madrasada diniy bilimlar bilan birga dunyoviy bilimlar ham berilgan ekan. Madrasada, qat’iy dastur va o’quv rejasi bo’lmasada, mavzular uzoq yillik tartib asosida o’qitilgan.

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avlodni tarbiyali va salohiyatli, bilimli o'sib ulg'ayishi uchun o'z oldiga qo'ygan maqsad-vazifalarini sidqidildan bajarishi tushuniladi. Matematika o'qitish metodikasi taraqqiyoti, boshqa fanlar metodik taraqqiyoti kabi tasirli tarzda ijobiy tomonga o'zgarishlar bilan qadam tashlamoqda. Misol uchun matematika o'qitish metodikasi fani pedagogika fanining ma'lum bir bo'limi bo'lib, u matematika fanini o'qitish qoidalarini o'rganish bilan shug'ullanadi. Matematika o'qitish metodikasi matematika fanini o'qitish qonuniyatlarini o'rganish jarayonida pedagogika, mantiq, psixologiya, matematika, lingvistika va falsafa fanlari bilan uzviy aloqada bo'ladi. Boshqacha aytganda, maktabda matematika o'qitish muammolari mantiq, psixologiya, pedagogika, matematika va falsafa fanlari bilan uzviy bog'liqlikda hal qilinadi.

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