



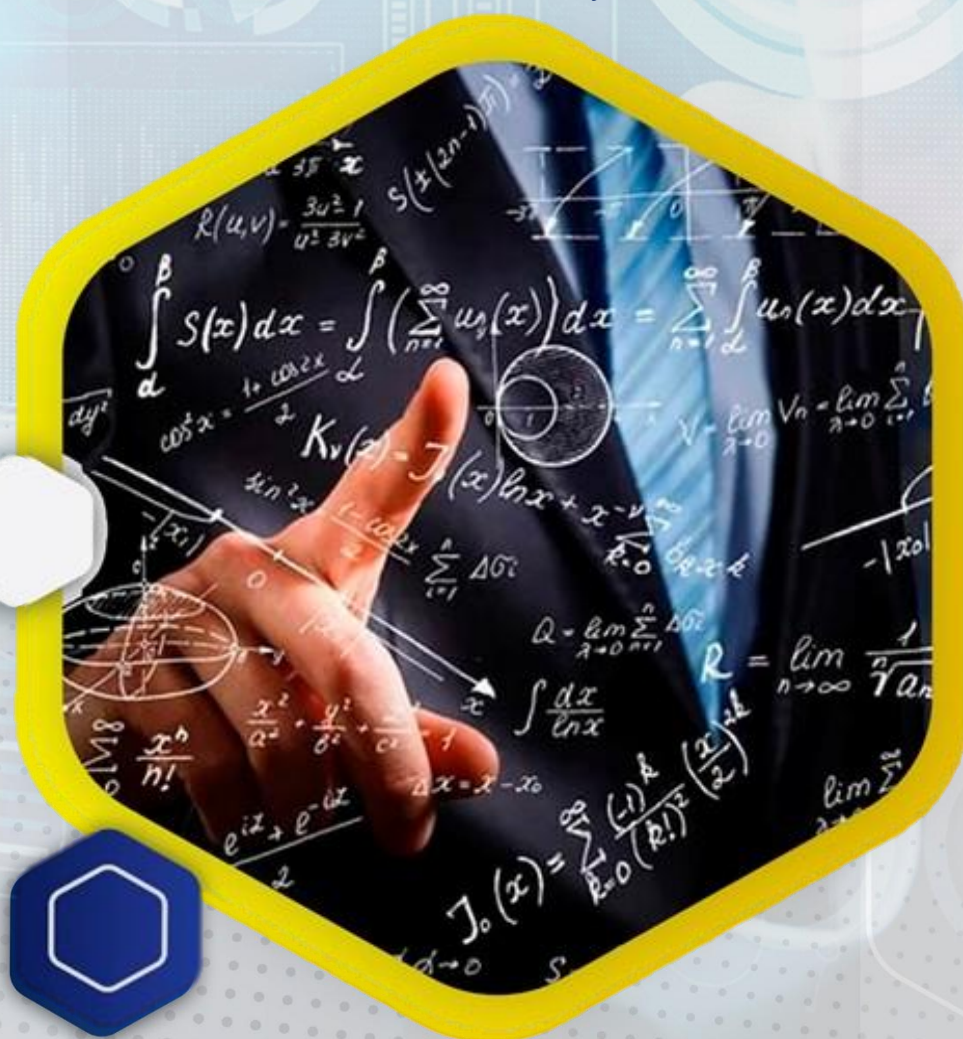
O'ZBEKISTON RESPUBLIKASI
OLIIY TA'LIM, FAN VA INNOVATSIYALAR
VAZIRLIGI



BUXORO
DAVLAT
UNIVERSITETI
1930

"FIZIKA, MATEMATIKA VA SUN'IY INTELLEKT TEXNOLOGIYALARINING DOLZARB MUAMMOLARI"

XALQARO ILMIIY-NAZARIY ANJUMAN MATERILLARI



BUXORO-2025



**O'ZBEKISTON RESPUBLIKASI
OLIY TA'LIM, FAN VA INNOVATSIYALAR
VAZIRLIGI**



CURRENT PROBLEMS OF PHYSICS, MATHEMATICS AND ARTIFICIAL INTELLIGENCE TECHNOLOGIES

**INTERNATIONAL SCIENTIFIC AND THEORETICAL
CONFERENCE**

(May 16-17, 2025)

Bukhara-2025

UDC: 530+51+004.8

LBC: 22.1 + 22.16 + 32.81

A92

ISBN: 978-6206-800-31-9

ORGANIZING COMMITTEE

Chairman:	
Khamidov O.Kh	Professor, rector of Bukhara State University
Vice-chairman:	
Samiyev K.A.	Professor, vice-rector of Bukhara State University
Jurayev H.O.	Professor, dean of the Faculty of Physics, Mathematics and Information Technologies, Bukhara State University
Members of the organizing committee	
Sharipov M.Z.	Professor, head of the Department of Bukhara State University
Jalolov O.I.	Docent, head of the Department of Bukhara State University
Shafiyev T.R.	Docent, head of the Department of Bukhara State University
Dilmurodov E.B.	Docent, head of the Department of Bukhara State University
Kodirov J.R.	Docent, head of the Department of Bukhara State University
Durdiev U.D.	Docent, head of the Department of Bukhara State University
Eshonkulov H.I.	Docent, IT Advisor to the Rector of Bukhara State University
Bakayev I.I.	Docent, Senior Specialist at the Center of Excellence for Science and Education, Bukhara State University
Nuriddinov J.Z.	Docent, deputy dean of the Faculty of Physics, Mathematics and Information Technologies
Ubaydullayev A.N.	Docent, deputy dean of the Faculty of Physics, Mathematics and Information Technologies
Rasulov X.R.	Docent, Bukhara State University
Fayziyev Sh.Sh.	Docent, Bukhara State University

PROGRAM COMMITTEE

Chairman:	
Rasulov T.H.	Professor, Head of the Center of Excellence for Science and Education, Bukhara State University
Members of the organizing committee	
Mukimov K. M.	Academician of the AS RUZ
Durdiev D.K.	Professor, head of Bukhara branch of the Institute of Mathematics named after V.I.Romanovsky
Mutti-Ur Rehman	Professor, Asia International University
Ikromov I.A.	Professor, head of Samarkand branch of the Institute of Mathematics named after V.I.Romanovsky
Shadimetov X.M.	Professor, Tashkent institute of railway transport engineers
Ravshanov N.	Professor, Digital Technologies and Artificial Intelligence Development Research Institute
Hayotov A.R.	Professor, V.I. Romanovsky Institute of Mathematics of the Academy of Sciences of Uzbekistan
Muminov B.B.	Professor, Tashkent State University of Economics
Muminov Z.E.	Professor, Tashkent State University of Economics
Muminov M.E.	Professor, Samarkand State University
Jurayev D.R.	Professor, Bukhara State University
Kaxxorov S.K.	Professor, Bukhara State University
Jiemuratov R.E.	Professor, dean of the Faculty Physics-Mathematics, Nukus State Pedagogical Institute
Prenov B.B.	Docent, head of the Department Nukus State Pedagogical Institute
Otepbergenov J.S.	Docent, head of the Department Nukus State Pedagogical Institute
Seitnazarov K.K.	Docent, head of the Department Nukus branch of Tashkent university of Information Technologies
Tursunov I.G.	Professor, dean of the Faculty Physics and Chemistry, Chirchik State Pedagogical University

Secretariat:***Atamuradov J.J., Khudayarov S.S., Xazratov F.X.***© ***Bukhara state university***

1. 60540100 - Matematika bakalavriat yo'nalishi malaka talablari. Nizomiy nomidagi TDPU. Toshkent -2024.
2. Turgunbayev R.M. Matematik analiz. 1.qism. T.: Metodist nashriyoti. 2023.-360b.

KO'ZI OJIZ O'QUVCHILAR UCHUN KOMBINATORIKA ELEMENTLARI MAVZUSINI TUSHUNTIRISH USULLARI VA METODLARI

Xudayarov Sa'nat Samadovich

Buxoro davlat universiteti, Buxoro, O'zbekiston.e-mail: s.s.xudayarov@buxdu.uz

Safarov Fayoz Obloqulovich

Buxoro davlat universiteti, Buxoro, O'zbekiston.e-mail: f.o.safarov@buxdu.uz

Annotatsiya. Bugungi kunda inklyuziv ta'lim tizimini rivojlantirish, imkoniyati cheklangan bolalarning jamiyatga to'laqonli integratsiyasini ta'minlash davlat siyosatining muhim yo'nalishlaridan biri hisoblanadi. Shu boisdan, kombinatorika elementlarini ko'rish imkoniyati cheklangan o'quvchilarga moslashtirib o'qitish metodikasini ishlab chiqish — zamonaviy ta'lim talablariga mos, ilmiy-uslubiy va amaliy jihatdan juda dolzarb hisoblanadi.

Kalit so'zlar: inklyuziv ta'lim, sust ko'rish, qisman ko'rish, butunlay ko'ra olmaydigan, kunlik metodlar.

МЕТОДЫ И ПОДХОДЫ К ОБЪЯСНЕНИЮ ТЕМЫ «ЭЛЕМЕНТЫ КОМБИНАТОРИКИ» СЛЕПЫМ УЧАЩИМСЯ

Абстрактный. Сегодня развитие системы инклюзивного образования и обеспечение полноценной интеграции детей с ограниченными возможностями в общество являются важными направлениями государственной политики. Поэтому разработка методики обучения, адаптирующей элементы комбинаторики для учащихся с нарушениями зрения, является весьма актуальной с научной, методической и практической точки зрения, отвечающей требованиям современного образования.

Ключевые слова: инклюзивное образование, слабовидящие, слабовидящие, полностью слепые, ежедневные методы.

METHODS AND APPROACHES TO EXPLAINING THE TOPIC "ELEMENTS OF COMBINATORICS" TO BLIND STUDENTS

Abstract. Today, the development of an inclusive education system and ensuring the full integration of children with disabilities into society are important areas of state policy. Therefore, the development of a teaching methodology that adapts elements of combinatorics for students with visual impairments is very relevant from a scientific, methodological and practical point of view, meeting the requirements of modern education.

Key words: inclusive education, visually impaired, partially sighted, totally blind, daily methods.

Kirish va muammo bayoni. Ko'rish imkoniyati cheklangan o'quvchilarni kombinatorika elementlari bo'limi bilan samarali tanishtirish, har bir o'quvchining individual bor imkoniyatlarini hisobga olgan holda ma'ruza va amaliy mashg'ulotlarni shallantirish uchun metodik asoslarni ishlab chiqish hamda amaliyotga joriy etish, o'quvchilarning kombinatorikaga oid masalalarni yechishda qiyinchiliklarni aniqlash hamda u masalalarga oson yo'llarni yo'llarini taklif etish.

Masalan, qutida bir donadan daftar, chizg'ich va o'chirg'ich bor. Bu o'quv qurollarini stol ustiga ketma-ket qanday joylashtirish mumkin?

1) daftar, chizg'ich, o'chirg'ich; 2) daftar, o'chirg'ich, chizg'ich, 3) chizg'ich, daftar, o'chirg'ich; 4) chizg'ich, o'chirg'ich, daftar. 5) o'chirg'ich, daftar, chizg'ich. 6) daftar, chizg'ich, o'chirg'ich.

Masalani yechishda Brayl doskasidan foydalanib tushuntirish mumkin, ya'ni buning uchun Brayl doskasini ixtiyoriy yuqori bir burchagidan uchta tik yoki ko'ndalang holatdagi kataklarni olib, bularning birinchisiga daftar, ikkinchisiga chizg'ich, uchunchisiga o'chirg'ich so'zlarini birinchi

harfini yozib chiqamiz. Keyingi qadamlarda bu uchta harfni o‘rinlarini almashtirib yozib chiqamiz, shu tarzda masala oson yechiladi.

Yana bir yaxshi usullardan biri bu, har bir fan o‘qituvchisi yozayotgan ma’lumotlarini doskada ovoz chiqarib yozib borsa yaxshi natija beradi. Masalan siz darsda “Mushuk bu yerda” gapini boshqacha masalan “Mushuk stol ostida” jumladan foydalangan yaxshiroq, chunki ko‘zi ojiz o‘quvchilar “u yerda”, “bu yerda” kabi yo‘naltiruvchi so‘zlarni ishlatmaslik yaxshiroq. Chunki, yo‘naltiruvchi so‘zlarni bolalar ko‘ra olmaydi. Agar darsda bolalarga mavzu yuzasidan biror savol tug‘ulsa o‘quvchilardan ovoz chiqarish yoki qarsak chalish (masalan ikki marta) orqali bildirish aytiladi bu ham bir usul hisoblanadi. Bundan tashqari “taktil o‘qitish” usuli- bu ko‘rish imkoniyati cheklangan insonlar uchun mo‘ljallangan juda yaxshi va samaraqli usuli bunga misol Brayl yozuvi shu usuldan olingan. Matematika, biologiya, geografiya, geometriya va boshqa fanlardagi mavzularni tushuntirish uchun qo‘l barmoqlari yoki tananing boshqa sezgi organlaridan foydalangan holda ma’lumotlarni sezish orqali ta’lim olishdir. Masalan geografiya darslarida qavariqli xaritalardan foydalanish juda yaxshi samara beradi. Biologiya darslarida hayvon yoki o‘simlik barglarini ushlab ko‘rish orqali tushuntirish yaxshi natija beradi. Kombinatorika elementlarini o‘qitishda ham masala shartini buzmaganda holda imkon bor bo‘lgan narsalardan foydalanish yaxshi natija beradi, masalan toshlardan foydalanish mumkin, ruchaka va qalamlardan foydalanish mumkin. Yana bir usullardan biri darsni yozib olib qayta eshitish samarali hamda effektiv usul hisoblanadi.

1. Foydalanilgan adabiyotlar.

1. Normativ-huquqiy hujjatlar va metodologik ahamiyatga molik nashrlar.

1.1. O‘zbekiston Respublikasi Prezidentining 2019-yil 29-apreldagi “O‘zbekiston Respublikasi Xalq ta’limi tizimini 2030-yilgacha rivojlantirish konsepsiyasini tasdiqlash to‘g‘risida”gi PF-5712-son farmoni.

2. Ilmiy adabiyotlar.

2.1. Susan Carney, Karen Scammell and others. Teaching Students with Visual Impairments. Saskatchewan Learning – 2003. 130 p.

2.2. A.A.Abdushukurov, T.M.Zuparov, “Ehtimollar nazariyasi va matem

3. Internet saytlari.

3.1. <https://www.pathstoliteracy.org/strategies-teaching-students-who-are-blind-orvisually-impaired/>

3.2. <https://www.weareteachers.com/teaching-blind-students-visually-impaired/>

3.3. <https://www.wikihow.com/Teach-a-blind-or-Visually-Impaired-student/>

POSSIBILITIES OF DIGITAL TECHNOLOGIES IN ORGANIZATION OF EDUCATIONAL PROCESSES IN HIGHER EDUCATION INSTITUTIONS

Yadgarova L.Dj.

Bukhara State University,

Senior Lecturer, Department of

Information Systems and Digital Technologies

Ergasheva D. B.

Master's degree, National University

of Uzbekistan named after Mirzo Ulugbek

Abstract: This article covers the comparative analysis of the research conducted in recent years on the implementation of ICT and innovative approaches to the educational system, the identification of problems, the implementation of observations, and the development of scientifically based proposals and recommendations on digital technologies that should be applied to the educational process.

Key words: higher education, information and communication technologies, digital technologies, quality and efficiency of education, Internet.

Hayitov Umidjon Hamidovich, Hojiyev Nozimjon Yoqubovich Talabalarning kompetentligini baholashda excel dasturidan foydalanish: tizimli yondashuv	433
Kudratov Elmurod Abdukhalimovich, Soliyev Tursunboy Izzatillo ugli, Cuddapah Dhananjaya Rao Physics laboratory training through synonymous method – an innovative approach	434
Bahronova Dilshoda Mardonovna Oliy ta'limda mobil ilovalar yordamida dasturlash asoslarini bosqichma-bosqich o'rgatishga yo'naltirilgan samarali pedagogik modelni ishlab chiqish	438
Umaraliyeva Diyora Ulug'bek qizi Talabalarni teorema isbotini tahlil qilishga o'rgatishning bir usuli haqida	439
Xudayarov Sa'nat Samadovich, Safarov Fayoz Obloqulovich Ko'zi ojiz o'quvchilar uchun kombinatorika elementlari mavzusini tushuntirish usullari va metodlari	441
Yadgarova L.Dj., Ergasheva D. B. Possibilities of digital technologies in organization of educational processes in higher education institutions	442
Атаева Г.И. Прогрессивные методы обучения программированию: использование онлайн-платформ	444
Зарипова Гулбахор Камиловна, Зарипов Камол Яшинович Интерактивные методы использования искусственного интеллекта в глубоком изучении английского языка в нашем современном цифровом обществе	446
Хо'jayev Sulaymon Sultonovich Buyuk mutafakkirlarimizning zamonaviy pedagogik texnologiyalarni vujudga kelishidagi o'rni.	449
Зарипова Гулбахор Камиловна, Зарипов Камол Яшинович Опыт ученых по использованию искусственного интеллекта на уроках английского языка в высших учебных заведениях	451
Очилова Замира Шукирилловна Применение электронных средств обучения в курсе математического моделирования.	454
Садуллаева Ирода Пулатовна Возможности развития навыков математической грамотности на основе интегративного подхода	457
Хожиева Мухлиса Султоновна Цифровые технологии как катализатор развития современного образования	459