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# CONFERENCE ON THE ROLE AND IMPORTANCE OF SCIENCE IN THE MODERN WORLD

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## CONFERENCE ON THE ROLE AND IMPORTANCE OF SCIENCE IN THE MODERN WORLD

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## **COMPATIBILITY OF TRADITIONAL AND INNOVATIVE APPROACHES IN EDUCATING PRIMARY STUDENTS IN A DIGITAL EDUCATIONAL ENVIRONMENT**

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**Abstract:** This article examines the issue of combining national values and modern technologies in the primary education system in the era of digital transformation. The study analyzes the best practices of countries such as Japan, Singapore, South Korea, Estonia, and Canada, and shows ways to integrate traditional pedagogical heritage with modern digital tools. As a result, practical recommendations for the education system of Uzbekistan are formulated.

**Keywords:** digital transformation, primary education, national values, innovative pedagogy, international experience, educational technologies, national education, information technologies.

The modern era is characterized by the unprecedented pace of technological development in history. Information and communication technologies have covered almost all aspects of human life, from production to interpersonal relationships. The field of education has not been left out of this process. Today, digital tools are becoming an integral part of the educational process. As a result, the issue of preserving national identity in the context of globalization is more important than ever. Amidst the influx of different cultures and values, it has become an urgent need to convey the rich heritage of one's people to the younger generation. Finding a balance between these two trends - technological modernization and strengthening national identity - is one of the main problems of modern pedagogy.

As the head of our country noted in his Address to the Oliy Majlis of December 29, 2020, the acquisition of digital knowledge and information technologies is of crucial importance in achieving sustainable development [1]. This idea determines the strategic role of technologies in the process of modernization of the education system. At the same time, the concept of "Continuous Spiritual Education", approved by the resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 31, 2019, establishes the formation of loyalty to the Motherland, national pride, and spiritual and moral qualities in the younger generation as a priority task [2]. Thus, the parallel development of technological progress and national education is the main direction of modern educational policy.

The purpose of this article is to theoretically substantiate the ways of combining traditional pedagogical approaches and modern technologies in educating primary school students in a digital learning environment, as well as to conduct a comparative analysis of international experience.

In recent decades, the term “digital learning environment” has firmly established itself in the pedagogical lexicon. Different researchers interpret this concept from different perspectives, which indicates its versatility and complexity.

Domestic scientists N. Muslimov and M. Lutfillayev describe electronic educational resources as an interactive space that ensures the interaction of participants in the educational process [5]. In their approach, the communicative function of technology is prioritized. I. Ergashev calls the digital environment an integrated system created using ICT tools [6]. J. Nazirov believes that the main feature of the digital environment is the ability to adapt to the personal needs of users [7].

In foreign literature, this term also has different meanings. American researcher K. Forrest distinguishes between traditional Internet pages and real interactive platforms, which serves as an important methodological basis for designing educational platforms [17]. A. Masrani and his colleagues present the digital environment as a holistic system and propose a model of an electronic ecosystem [21]. South Korean expert Kim Jin Hae emphasizes a broader approach, evaluating the digital environment as a source of not only technical, but also cognitive and even linguistic changes [19].

This issue is also being actively studied in the CIS countries. Russian scientists L.V. Savchenko and A.V. Platonova define the digital educational environment as a set of technological, information and methodological resources necessary to achieve the specified results [24]. Kazakh researcher K. Buzaubakova describes it as a set of open and distributed information systems [15].

Summarizing the above views, the digital educational environment can be defined as follows: a digital educational environment is a pedagogical system organized on the basis of modern information technologies, ensuring effective interaction of all participants in the educational process, free from time and space boundaries, adaptable to individual needs, and its main features include interactivity, the possibility of individualization, the use of multimedia formats, remote collaboration and mobility.

Education is a purposeful pedagogical activity carried out with the aim of preparing the younger generation for social life and forming spiritual and moral qualities in them. Education is a systematic process aimed at comprehensively developing the younger generation based on a specific goal and socio-historical experience [3]. National education is a form of this process based on a specific national culture, traditions and values. All noble goals can be achieved through education and upbringing [4]. This determines the decisive place of upbringing in the development of the younger

generation and shows the inextricable link between the two components of the pedagogical process - education and upbringing.

The problem of national education has been studied by many scientists at different times. M. Aminov defines education as the process of forming the necessary qualities for a person to successfully function in society [8]. M. Galdiyeva emphasizes the joint influence of the family, school and social environment in the development of national consciousness in primary school students [9]. Kh. Jabborov explains national education through spiritual and moral qualities manifested in behavior [10]. R. Mavlonova considers national education to be a form of universal human values adapted to local conditions, that is, a national form of universal human education [11]. M. Qur'anov sees it as a There are similar views in foreign pedagogy. American J. Dewey emphasized the importance of national values in civic education [16]. French sociologist É. Durkheim sees education as a means of ensuring the stability of society [18]. Turkish scientist Ziya Gökalp describes national education as the process of transforming knowledge into the spiritual habits of an individual [18].

Thus, national education is a complex pedagogical process aimed at the comprehensive development of the individual, the formation of his national identity, based on the historical experience, cultural heritage and value system of a particular people.

The introduction of digital technologies into the field of education is somewhat alarming. This is because the virtual environment can alienate children from real life and alienate them from national values. After all, today's children are constantly in contact with content reflecting the cultures of different countries.means of transferring cultural heritage to generations and ensuring national security [13].

Through social networks, video platforms, online games, they are exposed to foreign trends, views and lifestyles. As a result, some children may develop negative attitudes, such as indifference to their national identity and disregard for the heritage of their ancestors. The fact that foreign cartoon characters are becoming more popular among primary school students than characters from national fairy tales is a clear example of this. However, from another perspective, digital tools also allow us to present national values in a new way, making them interesting and understandable for the younger generation. The pedagogical potential of modern technologies is very wide:

Firstly, examples of national oral creativity - fairy tales, legends, epics can be processed in the form of animated films and interactive books. Secondly, the past is brought to life by creating multimedia projects about historical figures and events. Thirdly, through virtual museums and excursions, cultural heritage will be accessible to everyone, regardless of territorial borders. Fourthly, national music and art can be promoted in a modern format - through podcasts, video tutorials, interactive applications.

In general, there is no natural conflict between technology and national education - the main thing is to use digital tools in the right direction, in accordance with pedagogical goals. Technology should not be a means of destroying national values, but a means of conveying them to the new generation in a new language.

Different countries have developed their own approaches to integrating digital education and national values. The study analyzed the experience of five countries - Japan, Singapore, South Korea, Estonia and Canada. These countries were selected based on several criteria: high performance in international education rankings, innovation in the field of digital education, experience in preserving national values and successfully integrating technologies. Japan has been implementing the GIGA School program since 2019. The main goal of this initiative is to provide every student with a personal computer or tablet and guarantee high-speed internet access [26]. As of July 2021, 96.2% of students were provided with digital devices [32].

However, along with technological equipment, the Japanese education system has preserved moral education as a separate subject [14]. In the principle of “digital-national balance” developed by Japanese methodologists, children learn national etiquette while using modern devices. According to the Yarimizu methodology, this process takes place in three stages: first, children understand the usefulness of digital tools for national culture, then they learn to use technology in practice along with national values, and finally they learn to constantly demonstrate their national character in their digital lives [27].

Singapore has a unique experience as a multinational state. The country’s population consists of Chinese, Malay, Indian and other ethnic groups, and there are four official languages. The Singapore Student Learning Space (SLS), created as part of the EdTech Masterplan 2030 strategy, works in English, Chinese, Malay and Tamil [28]. Content is prepared for each language group, taking into account cultural characteristics.

The Character and Citizenship Education program will provide citizenship education in a digital environment [29]. The country’s only teacher training institution, the National Institute of Education (NIE), will ensure that all educators are trained to the same high standards [30]. In 2024, specialized certification courses in artificial intelligence will be mandatory for all teacher candidates [18]. South Korea is a world leader in the introduction of artificial intelligence technologies into education. In June 2023, the “AI Digital Textbook Promotion Plan” was announced [20], and from March 2025, AI textbooks will be used in grades 3-4 in mathematics, English, and computer science [31]. Over three years, \$760 million has been allocated for these purposes.

Digital ethics education is carried out in three areas: compliance with digital laws and regulations, protection of personal data and copyright, and digital self-governance [16]. Using VR technologies, the study of Korean history and culture is organized - students

can virtually visit ancient palaces and historical sites [23]. Estonia is recognized as a country that has achieved high results in conditions of limited resources. The Tiger Leap program, implemented since the 1990s, has made the country a leader in digital education [22]. All digital platforms are developed in Estonian, taking into account the local cultural context.

As part of the “ProgeTiger” project, students create national art pieces using computer programs — traditional patterns, national melodies are processed in a modern format [25]. The Estonian Education Strategy 2021-2035 envisages the development of digital pedagogical methods and the use of digital solutions to personalize education [16].

Canada has successfully implemented a multicultural policy in digital education. In 1971, it was the first in the world to announce an official multicultural policy, and the 1988 Multiculturalism Act takes into account the cultural needs of all ethnic groups [33].

The federal government has allocated \$17.6 million over three years, starting in 2023, through the “Digital Literacy Exchange Program” [18]. The organization “MediaSmarts” implements digital literacy programs in the context of national values, organizes special workshops for teachers [26]. The province of British Columbia has identified six areas of digital literacy: creativity, project management, research skills, critical thinking, digital citizenship, and technical operations [18].

Analyzing the practice of the countries considered above, the following general patterns can be distinguished:

Firstly, successful countries work on the basis of long-term strategies. Japan's GIGA program, Singapore's EdTech Masterplan 2030, Estonia's Tiger Leap - all of them were implemented on the basis of 5-10-year plans. Gradual development was preferred, not sudden, hasty changes.

Secondly, technological modernization does not displace national values, but rather enriches them in a new form. In all the countries considered, national culture is actively promoted in digital format. Technology is used not as a goal, but as a means of national education.

Third, teacher training is a crucial factor. Singapore’s National Institute of Education, Japan’s teacher training programs, Estonia’s special training for educators — all of these show that even the most advanced technologies are ineffective without well-trained teachers.

Fourth, it is important to involve all segments of society. South Korea’s experience in introducing AI textbooks shows that it is necessary to take into account the opinions of parents and educators, and to be ready to revise initial plans.

Fifth, social support systems have been created. In Singapore, subsidies for low-income families, in Canada, special programs for indigenous peoples — these are aimed at eliminating digital inequality.

Based on the study of international experience, the following recommendations can be formulated for our country's education system:

1. Priority should be given to the creation of national digital content. Uzbek folk oral literature - fairy tales, proverbs, epics - should be prepared in multimedia format. Epics such as Alpomish and Goroglu can be brought to children in the form of animated series and interactive books, and holidays such as Navruz and Mehrjon can be shown in a virtual format.

2. It is advisable to enrich the subject of "Education" with digital tools. Based on the experience of Japan, it is necessary to combine moral education with modern technologies. Virtual excursions, interactive exercises, multimedia presentations will significantly increase the effectiveness of the lesson.

3. It is necessary to plan the creation of a multilingual educational platform. A single educational platform similar to the Singapore model, working in Uzbek, Russian, Karakalpak and English, can be developed. This is consistent with the multinational structure of our country.

4. Systematic teacher training programs are necessary. Special courses should be organized to improve the digital competence of teachers. This should include not only technical skills, but also the methodology of teaching national values in digital format.

5. A phased implementation strategy should be used. The experience of Korea shows that an effective approach is to first test the innovation in the form of pilot projects, analyze the results, take into account the opinions of all stakeholders, and then implement it on a large scale.

In conclusion, it can be said that there is no natural conflict between digital technologies and national education - they are complementary, enriching elements. Modern tools do not destroy national values, but allow them to be conveyed to the new generation in a new form.

The experience of developed countries shows that the key to success is a long-term strategy, high-quality training of personnel, ensuring the participation of all segments of society, and a phased approach. Each country has created its own unique model based on its cultural characteristics.

Uzbekistan has its own rich cultural heritage, a developing education system, and the high potential of the younger generation. By critically absorbing international experience and adapting it to local conditions, our country can create its own model in the field of digital education - a model in which modern technologies serve to strengthen our national values.

Most importantly, we should not forget that technology is a means, not a goal. The goal is to educate a generation that loves its homeland, values its national values, has modern competencies, and is ready for global competition. It is through this approach that Uzbekistan will succeed in building a modern digital society while preserving its rich cultural heritage.

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**“SHAHRISABZ” DAVLAT MUZEY QO’RIQXONASIDA “SOHIBQIRON  
AMIR TEMURNING TUG’ULISHI.” SURATIGA OID BILIMLAR.**

**Xushvaqtova Lobar Oqbutayevna**  
**“Shahrisabz” davlat muzey qo’riqxonasi Bosh mutaxassisi**

**Annotatsiya:** Ushbu maqolada “Shahrisabz” davlat muzey qo’riqxonasi tarkibiga kiruvchi Chubin madrasasida tashkil qilingan “Amir Temur hayoti va faoliyati” ko’rgazmasida saqlanayotgan asar haqida so’z boradi. Rassom Dilshod Azizov ijodiga tegishli bo’lgan “Sohibqiron Amir Temurning tug’ulishi” suratidagi bobomiz Amir Temur, otasi Muhammad Tarag’ay bahodir, onasi Tegina xotun, piri va ustoz Shayx Shamsiddin kulol va opasi Qutlug’ Turkon og’a singari shaxslar haqida ma’lumotlar berilgan.

**Kalit so’zlar:** Amir Temur, Muhammad Tarag’ay bahodir, Tegina xotun, Shayx Shamsiddin kulol, Qutlug’ Turkon og’a, Kesh, Xo’ja Ilg’or.

**ИНФОРМАЦИЯ О КАРТИНЕ «РОЖДЕНИЕ САХИБКИРАНА АМИРА  
ТЕМУРА» ИЗ ГОСУДАРСТВЕННОГО МУЗЕЙНОГО ЗАПОВЕДНИКА  
«ШАХРИСАБЗ».**

**Хушвактова Лобар Окбутаевна, главный специалист Государственного  
музейного заповедника «Шахрисабз».**

**Аннотация:** в данной статье речь пойдет о работах, представленных на выставке «Жизнь и творчество эмира Тимура», организованной в медресе Чубин, входящем в состав Государственного музейного заповедника «Шахрисабз». В картине «Рождение святого Амира Тимура», приписываемой художнику Дилшоду Азизову, упоминаются такие фигуры, как дедушка Амир Тимур, отец Мухаммад Тарагай Бахадир, мать Тегина Хотун, пири и учитель шейх Шамсиддин Кулол и сестра Кутлуг Туркон ага.

**Ключевые слова:** Амир Темур, Мухаммад Тарагай Бахадир, Тегина Хотун, Шейх Шамсиддин Кулол, Кутлуг Туркон ага, Кеш, Ходжа Ильгор.

**INFORMATION ABOUT THE PAINTING "THE BIRTH OF  
SAHIBKIRAN AMIR TEMUR" FROM THE STATE MUSEUM RESERVE  
"SHAHRISABZ".**

**Khushvaktova Lobar Okbutaevna, chief specialist of the State Museum  
Reserve "Shakhrisabz".**

**Annotation:** this article will talk about the work held in the exhibition “Life and work of Amir Temur” organized in the Chubin madrasa, which is part of the “Shahrisabz” State Museum Reserve. References are made to figures such as Grandpa Amir Temur, father Muhammad Taragay Bahadir, mother Tegina khotun,

piri and teacher Sheikh Shamsiddin kulol and sister Qutlug' Turkon oga, in the painting "the birth of the Holy Emir Temur", attributed to the work of the artist Dilshod Azizov.

**Key words:** Amir Temur, Muhammad Taragai Bahadir, Tegina Khotun, Sheikh Shamsiddin Kulol, Kutlug Turkon-aga, Kesh, Khoja Ilgor.

Istiqlolga erishganimizdan keyin tarixiy adolatni qaror toptirish, xalqimizning uzoq yillar davomida toptalib kelgan milliy g'ururini yuksaltirish maqsadida Sohibqiron Amir Temur bobomizning nafaqat muborak nomi, boy me'rosi va xotirasini, ayni paytda tarixiy siymosini ham tiklashga qaror qilindi. Sovet davrida bu masalada g'arazli siyosat olib borilgan, asossiz ravishda bobomiz jaholat va yovuzlik timsoli sifatida ko'rsatilib kelingan. Negaki, mustabid tuzum tarixiy haqiqatni namoyon etishdan, bizning milliy o'zligimizni anglashimizdan mutlaqo manfaatdor emasdi.

Mamlakatimizda mustaqillik yillarida amalga oshirilgan islohotlar tizimida madaniyat va san'at sohasidagi ishlar alohida ahamiyat kasb etdi. Ayniqsa ajdodlar merosini qayta tiklash bilan bog'liq bunyodkorlik ishlarida tasviriy san'atining tarixiy an'analarini o'rganish va ularni zamonaviy texnologiyalar bilan boyitish bo'yicha ibratli ishlar olib borildi. Amir Temur obrazi tasvirlangan asarlarda asosan uning harbiy ishlari, ziyofat, ov, qabul marosimlari, qolaversa din bilan aloqalari ifodalangan. Sohibqiron obrazini yaratish hozirgi o'zbek rassomlari ijodida ham katta o'rin tutadi. Ana shunday muvaffaqiyatli ishlar qatoriga "Shahrisabz" davlat muzeyi qo'riqxonasi tarkibiga kiruvchi Chubin madrasasida tashkil etilgan "Amir Temur hayoti va faoliyati" ko'rgazmasidagi rassom Dilshod Azizov ijodiga tegishli "Sohibqiron Amir Temurning tug'ulishi" asari o'rin olgan.



Rassom Dilshod Azizov tomonidan yaratilgan “Sohibqiron Amir Temurning tug‘ulishi” asari yuksak mahorat ila ishlangan. Asar tarixiy janrda ishlangan bo‘lib, unda bo‘lajak sarkarda Amir Temurga ism qo‘yish marosimi aks etgan. Asar atmosferasi tug‘ilish, yangilanish fasli bo‘lgan bahorning erta tongini, havoning musaffoligini, tog‘larning ulug‘vor qad rostlaganini tomoshabinga yaqqol ko‘rsatib turibdi. Kelajakda dunyoga adolat va siyosat jihatidan nom taratgan shogirdini ham ruhiy, ham ma‘naviy yuksalishiga katta hissa qo‘shadigan Amir Temurning bo‘lajak ustozlari Shayx Shamsuddin Kulol qo‘lida diniy kitob tutib Qur‘on oyatlarini o‘qiyapti. Otasi Muhammad Tarag‘ay ustozga tavoze bilan hurmat ko‘rsatib, yosh go‘dakka hozirdan o‘rnak bo‘layotgandek go‘yo. Onasi Takina Xotun milliy libosda iffat va hayo bilan bag‘ridagi bolasining kelajakda buyuk inson bo‘lishini orzulab unga mehr bilan tikilayapti. Amir Temurnig o‘zi oppoq libosda gunohlardan pok chaqaloq sifatida tasvirlangan. Opasi Qutlug‘ Turkon Og‘a ukasining dunyoga kelganidan baxtiyor jilmaymoqda. Umuman olganda asar ranglari yengil, silliqanib ishlangan. Tong ruhiyatini berish uchun nisbatan sovuq ranglardan foydalanilgan.

Asardagi shaxslar haqida ma‘lumot beradigan bo‘lsak Amir Temur Kesh (hozirgi Shahrisabz) shahri yaqinidagi Xo‘ja Ilg‘or qishlog‘i (Qashqadaryo viloyatining hozirgi Yakkabog‘ tumani)da 1336 yil 9 aprelda dunyoga keldi. Uning kindik qoni to‘kilgan joy qadimda Xushjo‘yi obig‘ar, ya‘ni Zilol suvli chashma nomi bilan yuritilgan. Mazkur hayotbaxsh chashma suvlari tufayli bu maskan atrofida aholi to‘planib qishloq qad ko‘targan. Keyinchalik bu joy Xo‘ja Ilg‘or nomi bilan yuritila boshlagan.[1. B 5-6]

Tarixchi Ibn Arabshohning yozishicha “Temur ibn tarag‘ay ibn Abag‘ay bo‘lib, uning tug‘ilgan joyi Xo‘ja Ilg‘or deb ataladigan qishloqdir. Xo‘ja Ilg‘or Keshga qarashli joylardandir – Alloh u yerdan har qanday yomonlikni daf etsin!

Kesh Movarounnahr shaharlaridan (biri) bo‘lib, Samarqanddan taxminan o‘n uch farsax (masofa)dadir. Hikoya qiladilarki, (Temur) tug‘ilgan kechasi havoda qandaydir uchib yurgan temir qalpoqchaga o‘xshash bir narsa paydo bo‘lgan. Keyin u keng bo‘shliqqa tarqalib, yer yuziga yoyilib ketgan emish. Undagi cho‘g‘ va uchqunga o‘xshash narsalar har tomonga sachragan va uyilib, hatto o‘troq va badaviy joylarni ham to‘ldirib yuborgan emish...”[2. B 70] bundan kelib chiqadiki Sohibqironning to‘liq ismi Amir Temur ibn Amir Tarag‘ay ibn Amir Barquldir.

Amir Temurning otasi Amir Muhammad Tarag‘ay avvalo komil musulmon va bahodir jangchi bo‘lgan. Shuningdek ulamoyu fuzaloga ixlosmand, ilm ahliga homiy va ishtiyoqmand kishi edi. Amir Tarag‘ay Bahodir zamonasining mulkdor kishilaridan bo‘lib, Chig‘atoy ulusiga mansub hukmdorlar bilan yaqin munosabatda edi. U Shahrisabz (Kesh)ning ma‘lum qismida hokimlik qildi. Temur keyinchalik o‘z otasining mol – mulki haqida quyidagilarni bitgan: “Men 21 yoshga to‘lgan edim. Shu

yil otamning dehqonchiligi yaxshi bo'ldi. Qoramol va yilqilar ham ko'p bolaladilar. Men har o'n qulga bir boshliq tayinladim, har bir yigirma otni bir uyur qildim. Har bir o'n uyurni bir qulga topshirdim, har bir o'n tuyani va har bir ming qo'yni boqish uchun bir qul tayinladim. O'zimga tegishli mulkni idora qilishni esa maxsus ishonchli qulimga topshirdim". Amir Temurning yuqoridagi so'zlaridan ma'lum bo'ladiki, Tarag'ay bahodir zamonasining davlatmand kishilaridan bo'lgan.[3. B 13-14]

Amir Temurning otasi Tarag'ay No'yon (noib yoki o'n ming kishilik qo'shin boshlig'i) va amakisi hoji barlos urug'ining biy (boshliq – oqsoqol)lari va yirik mulkdor amirlaridan edi. Hatto Amir Muhammad Tarag'ay Chig'atoy ulusining e'tiborli beklaridan hisoblangan. Uning ajdodlari Kesh viloyatida hokimlik qilishgan. Shu bois Amir Temurning otasi yilda bir marotaba Ili daryosi bo'yida buyuk xon tomonidan chaqiriladigan el – yurt beklarining qurultoyiga taklif etilar va u bunday yig'inlarda muttasil qatnashar edi. Sharafuddin Ali Yazdiyning ta'riflashicha Tarag'ay olimlar, xayrli ishlarni amalga oshiruvchi taqvodor kishilarga marhamatli va mehribon bo'lib ularning majlislarida ishtirok etardi. Tarag'aybek piri Shamsuddin Kulolga ayniqsa chuqur ehtirom ko'rsatgan. Keyinchalik Shayx Shamsuddin Kulol Amir Temurning ham piri bo'lgan.

Shamsuddin Kulol yoki Shamsiddin Kulol (taxminan 1305-yil, Kesh — vafoti 1370-yil, 28-noyabr Kesh) – shayx Sharafiddin Ali Yazdiyning “Zafarnoma” asarida bergan ma'lumotiga ko'ra, Amir Tarag'oyning piri. „U qadrlı shayx Shamsuddin Kulolga sidqidildan ixlos qilardi va uning muborak qabriga (ziyosat uchun) tez-tez borib turardi“, deb yozadi Ali Yazdiy. Shamsuddin Kulol tasavvufda suhravardiylik tariqatiga mansub bo'lgan. Ayni paytda u xojagon tariqatiga ham hurmat bilan qaragan. Amir Temurning ham unga nisbatan ixlosi juda kuchli bo'lgan, saltanatni boshqargan chog'larida ham Shamsuddin Kulol qabrini ziyorat qilib turgan. 1373–1374 yillarda Amir Temur Shamsuddin Kulol qabri yonida bir gumbaz-maqbara qurdiradi va otasining hokini o'sha yerga ko'chirtirib, Shamsuddin kulol qabrining qibla (g'arb) tomoniga dafn etadi.[4. B 27]

Takina xotun, Tegina begim. Tegina Mohbegim (taxminan 1318 — 1353, hozirgi Shahrisabz) — Amir Temurning onasi. Amir Muhammad Tarag'ayning xotini.

Amir Temurning onasi Takina begim esa, naslu nasab jihatdan aslzodalardan bo'lib, Buxoro ulamolari peshvosi, mavlono sadr ash-shari'a, ya'ni shariat qonunlarini sharhlovchi alloma Ubaydulloh al- Buxoriyning qizi bo'lgan. Takina begim, ba'zi manbalarda Tegina Xotun, Takina Mohbegim milodiy 1334 yilda (taxminan 16 yoshida) Muhammad Tarag'aybekka uzatilgan. Oradan 2 yil o'tgach, ushbu nikohdan Temurbek dunyoga kelgan. Uning onasi “poshsha, poshshaxon ya'ni sulton og'oma'nolarini anglatuvchi Takina Xotun (aslida Tegina) ismi bilan atalgan. Takina Xotun Buxoro ulamolarining peshvosi mavlono “Sadr – ash – Shari'a”, ya'ni shariat ulug'i

nomi bilan shuhrat topgan qonunshunos olim Ubaydulloh al – Buxoriy ibn Toj ash – Shari’a Mahmudning qizi bo’lgan. Mazkur sharofatli ayol Buxoroning soliha farzandi, Keshning jasur onasi hisoblangan.[5. B 5-6]

Keyinchalik yaratilgan "Qissai Temur" ("Malfuzoti Temuriy"), "Temur qissasi" va Toshkentlik tarixchi Salohiddin Toshkandiyning "Temurnoma" (1908) asarida Takina xotun hayotiga oid ayrim ma’lumotlar mavjud. "Temurnoma"da bo’lajak sohib-qiron Amir Temurning tavallud topish (1336-yil 9 aprelda) tafsilotlari taqdirning ilohiy hukmi sifatida tasvirlangan. Amir Temurning kelajakda buyuk inson bo’lib yetishuvida onasining hissasi katta bo’lgan. Takina xotun erining vafotidan ancha avval qazo qilgan (1353).

Sohibqiron Amir Temur keyinchalik onasi va otasi dafn etilgan Keshdagi oilaviy xilxona ustida muhtasham maqbara qurdirgan. Amir Temur katta o’g’li Jahongir Mirzo 20 yoshida vafot etgach (1376), uni ota-onasining qabri yonida dafn etgan. Sohibqiron onasi xotirasiga atab, Keshda mashhur Oqsaroyini bunyod ettirgan.[6. B. 235]

Qutlug’ Turkon og’o (1331 1383) — Amir Temurning opasi. Amir Dovudbek dug’latning xotini. Sohibqiron 1360 yillarning boshlarida g’animlari ta’qibi tufayli Samarqandga kelib Qutlug’ Turkon Og’o uyida 48 kun turgan. 1375 yil Sohibqiron O’zganda Dilshod og’oga uylangan chog’da Qutlug’ Turkon Og’o no’yonlar va amirlar bilan to’yga yetib kelgan.

Nizomiddin Shomiyning yozishicha, 1383 yil Dilshod og’o vafotidan bir necha kun o’tgach, “o’zining xayrli ishlari, in’omu ehsoni bilan zamonasi xotinlaridan o’zgan, o’z xolis mollaridan madrasalar, xonaqohlar qurdirgan, har nav ezguliklari bilan jahon xalqiga foyda yetkazgan ulug’ xotun — Amir Sohibqironning opasi” Qutlug’ Turkon og’o vafot etgan. Sohibqiron bundan qattiq iztirobga tushgan. Bir necha muddat mamlakat va davlat ishlari bilan shug’ullanmay qo’ygan. Qutlug’ Turkon Og’o nihoyatda dono va zakovatli ayol bo’lgan. Amir Temur barpo etgan ko’p binolar uning maslahati bilan ishlangan. Sharafuddin Ali Yazdiyning yozishicha, “uning qabrini... Qusam ibn Abbosning mazoriga yaqin qazdilar va qo’yidilar».[7.]

Xulosa qilib aytganda Amir Temurning adolati shundaki, u har ishni o’z qarichi bilan emas, balki qonunlar asosida, xususan, Qur’oni Karimga asoslanib, insoniylik nuqtai nazaridan kelib chiqib hal etdi va birinchi navbatda, norasida go’daklarni avaylab, olim va adiblarni, hunarmandlarni himoyasiga oldi, davlatni yulgichlardan, o’g’ri va kazzoblardan saqlab, hech qachon va hech qaerda bironing haqqiga ko’z olaytirmadi, "qaerdan bir g’isht olgan bo’lsa, o’rniga o’ntasini qo’yidirdi", "qaerda bir daraxt kestirgan bo’lsa, o’rniga o’nta nihol o’tqazdi", "chaqaloqlarni yig’latmangiz, bu gunohi azimdur", "urushning hech keragi yo’q" degan zot ham Amir Temurdir. Amir Temurning tabiatan og’ir – bosiq, teran fikrlovchi va nihoyatda idrokli hamda ziyrak, kishilardagi qobiliyat, fazilat, ayniqsa samimiyatni tezda fahmlab oladigan inson

bo‘lishiga otasi Muhammad Tarag‘ay bahodir, onasi Takina xotun hamda Piri va ustozi bo‘lgan Shayx Shamsuddin kulolning roli juda katta bo‘lgan. Rassom Dilshod Azizov o‘z asarida ushbu jihatlarni ko‘rsatishga harakat qilgan desak mubolag‘a bo‘lmaydi.

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## ARTHROSPIRA PLATENSIS SUVO‘TINING BIOMASSA MIQDORIGA PAST HARORATNING TA’SIRI

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**Annotatsiya:** Yashil hamda ko‘k-yashil suv‘tlari yorug‘lik ta’sirida anorganik moddalardan organik moddalar sintezlaydi. Ushbu sintezlangan ozuqa moddalar har xil suvo‘t turlarida turlicha miqdorda hosil bo‘ladi. Asosan ozuqaviy moddalarning hosil bo‘lishiga tashqi muhit omillari ham bevosita o‘z ta’sirini o‘tkazadi. Jumladan, yorug‘lik, harorat, havo tarkibi, suv tarkibi, zichlik va boshqalar. Bu abiotik omillar suvo‘tlarning fotosintetik faoliyatiga ta’sir etib biomassa miqdorining o‘zgarishiga sabab bo‘ladi.

**Kalit so‘zlar:** sof hosildorlik, harorat diapazon, gomont, biomassa yo‘qotilishi, modifikatsiya, qorong‘u davr.

**Аннотация:** Зеленые и сине-зеленые водоросли синтезируют органические вещества из неорганических под воздействием света. Количество синтезированных питательных веществ различается у разных видов водорослей. Внешние факторы окружающей среды также напрямую влияют на производство питательных веществ. Например, свет, температура, состав воздуха, состав воды, плотность и т. д. Эти абиотические факторы влияют на фотосинтетическую активность водорослей, вызывая изменения в количестве биомассы.

**Ключевые слова:** чистая продуктивность, температурный диапазон, гомомонт, потеря биомассы, модификация, темный период.

**Abstract:** Green and blue-green algae synthesize organic substances from inorganic substances under the influence of light. These synthesized nutrients are produced in different amounts in different types of algae. External environmental factors also directly affect the production of nutrients. For example, light, temperature, air composition, water composition, density, etc. These abiotic factors affect the photosynthetic activity of algae, causing changes in the amount of biomass.

**Keywords:** net productivity, temperature range, homomont, biomass loss, modification, dark period.

**Kirish.** Buxoro viloyati kollektorlarida ko‘p turdagi tuban o‘simliklar o‘sadi. Ular son jihatdan bir-biridan farqlanadi. Ularning turli kollektorlarda sonining turlicha bo‘lishiga sabab suvdagi muhitning farqlanishi hisoblanadi. Suvning abiotik omillari bevosita suvo‘tlar hayotiga ta‘sir qiladi. Jumladan, suvdagi harorat, zichlik, pH ko‘rsatkichi, yorug‘lik miqdori, suvdagi tuz konsentratsiyasi, bosim va boshqalar. Ushbu tashqi muhit omillari suvo‘tlarning hayotini belgilab beradi. Ayrim kollektorlarda yashil suvo‘tlar ko‘p miqdorda bo‘lsa, boshqa bir kollektorlarda ko‘k-yashil suvo‘tlari ko‘p miqdorda uchraydi. Kollektorlarda aynan ko‘k-yashil suvo‘t turlarining ko‘p miqdorda uchrashining asosiy sabablaridan biri suvdagi pH ko‘rsatkichining yuqori bo‘lishidir. Chunki *Cyanophyta* bo‘limi vakillari *Chlorophyta* bo‘limi vakillariga nisbatan yuqori pH ga chidamlilikka ega.

**Material va metodlar.** Ushbu tadqiqotlar doirasida olib borilayotgan ma‘lumotlardan foydalanish uchun O‘zbekiston ilmiy-ommabop jurnallarga murojat qilingan. Ushbu mavzu bo‘yicha nashr etilgan adabiyotlarning ko‘pligi, olib borilayotgan ishlarning keng ko‘lamli ekanligi va ularning soni keltirilishi cheklanganligi sababli ushbu maqola uchun mavjud adabiyotlarning faqat bir qismi tanlangan.

**Natija va tahlillar.** Tungi past harorat ta‘sirida *Arthrospira platensis* suvo‘tining biomassa hosil qilishi kam. Tunda yetarlicha biomassa hosil qilish uchun ochiq sharoitlarda issiq muhitni tayyorlash qiyin hisoblanadi. *Arthrospira platensis* ning sof mahsuldorligiga ( gr quruq vazn L<sup>-1</sup> kun<sup>-1</sup>) qorong‘u davr haroratining (10-35 °C ) ta‘sirini baholash uchun yarim-uzluksiz kultivatsiya tajribalari o‘tkazilgan [1]. *Arthrospira platensis* gomont oziq moddalarga boy bo‘lib, uning tarkibida oqsil miqdori 60-70% ni tashkil qiladi [2]. Bu tur yuqori pH (9.8-10) va yuqori erigan anorganik uglerod (DIC) konsentratsiyasi (0.23-1.1mol L<sup>-1</sup>) sharoitida yaxshi o‘sadi [3]. Ushbu o‘ziga xos xususiyatlar boshqa suvo‘tlar bilan ifloslanish ehtimolini kamaytiradi va shu sababli u odatda ochiq suv havzalarida yetishtiriladi [4]. Ochik sharoitlardagi kultivatsiyada sovuq tunlarda harorat 2 soat ichida taxminan 10 °C ga pasayadi [5] va bu muhitdagi haroratni qayta ko‘tarish qiyinchilik tug‘diradi. *Arthrospira platensis* ni ochik sharoitda yetishtirishda optimal o‘sish harorati bo‘lgan 35 °C ni saqlab turish qiyin [6,7]. Qorong‘u vaqtdagi harorat sianobakteriyalarning fotosintez jarayoniga sezilarli darajada ta‘sir qiladi. Masalan, *Haematococcus lacustris* yashil suvo‘ti ustida o‘tkazilgan tajribada qorong‘u davr harorati 8 °C bo‘lganda biomassa konsentratsiyasi 28 °C ga nisbatan 30% ga past bo‘lgan. Qorong‘u davr haroratining sof hosildorlikka ta‘sirini ko‘rib chiqishda 2 omil muhim: kunduzgi hosildorlik va tungi biomassa yo‘qotilishi. Sof hosildorlik - bu yorug‘lik va qorong‘u davrlar davomida hosil bo‘lgan umumiy biomassa o‘sishi bo‘lib, u kunduzgi biomassa hosil bo‘lishi va tungi biomassa yo‘qotilishini o‘z ichiga oladi. Ayrim tadqiqotlarda qorong‘u davr haroratini pasaytirganimiz ma‘qul, chunki tungi biomassa yo‘qotilishi

kamayadi deb ta'kidlanadi [8,9]. Boshqa tadqiqotlar esa tungi past harorat ta'sirida sof hosildorlik kamayishini ko'rsatadi. Kunduzgi hosildorlik qorong'u davr harorati pasayganda kamayishga moyil bo'ladi. Masalan, Zitteli va boshqalar ochiq sharoitdagi harorat 12-13 °C dan pastga tushganida sof hosildorlik kamayganini qayd etgan [5]. Bu kamayish past haroratda oqsil sintezining susayishi bilan bog'liq deb hisoblanadi. Fotosintez qiluvchi mikroorganizmlar tunda oqsillarni sintez qiladi va kunduz davomida zararlangan fotosintetik tizimlarni tiklaydi [10-11]. Oldingi tadqiqotlardan birida qorong'u davrda past harorat oqsil sintezini susaytirishi aniqlangan [12] va bu holat kunduzgi mahsuldorlikning pasayishiga sabab bo'lishi mumkin deb qaraladi. Boshqa tomondan esa, qorong'u davr harorati pasayganda tungi biomassa yo'qotilishi kamayadi. Tungi biomassa yo'qotilishi - bu organizmda to'plangan fotosintez mahsulotlarining nafas olish va hayotiy faoliyatni saqlash jarayonida sarflanishi natijasida biomassa miqdorining kamayishidir. Tungi biomassa yo'qotilishining kattaligi ko'pincha biomassa konsentratsiyasiga nisbatan foiz (% biomassa) ko'rinishida ifodalanadi. Ma'lum qilinishicha, qorong'u davr haroratini pasaytirish tungi biomassa yo'qotilishini kamaytiradi. Masalan, Torzillo [20] tajribada faqat qorong'u davr haroratini 35°C dan 25°C ga tushirgan va 25°C da tungi biomassa yo'qotilishi 4.1% ni tashkil etib, 35°C dagi 6% ga nisbatan past bo'lgan. Tungi biomassa yo'qotilishi turli suvo'tlarda, jumladan, *A.platensis* [13], *Ch.sorokiniana* [14], *Ch.pyrenoidosa* [9,15], *H.locustris* [8], *Nannochloropsis salina* [14] va *Picochlorum sp.* [14] da qayd etilgan. Demak, qorong'u davr harorati *A.platensis* turida sof mahsuldorlikka 2 jihatdan - kunduzgi mahsuldorlik va tungi biomassa yo'qotilishi orqali ta'sir ko'rsatishi mumkin.

**Xulosa.** So'nggi so'z o'rnida shuni aytish joizki, suvo'tlarning hayotini faqatgina ularning yashash muhiti bo'lgan suv muhiti ta'minlab bermas ekan. Ularning hayotiga bevosita qolgan abiotik omillar ham ta'sir ko'rsatar ekan. Ayniqsa, suvdagi harorat ularda kechadigan asosiy fotosintez jarayoniga ta'sir qiladi. Chunki fotosintez jarayonida sodir bo'ladigan o'nlab reaksiyalar sodir bo'lishida bir qancha fermentlar ishtirok etadi. Fermentlar esa oqsil tabiatli moddalar bo'lib ularning faoliyat ko'rsatishi bevosita harorat o'zgarishi bilan o'zgarib boradi. Shuning uchun ham suvo'tlarning turlarini ajratib olish va ko'paytirish biotexnologiyasida ularning harorat chidamliligini aniqlash zarur.

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## ELBEK – MASALNAVIS

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### Annotatsiya

Mazkur maqolada jadid ijodkorlaridan biri bo‘lgan Elbekning masalnavislik mahorati xususida so‘z yuritilgan. Shunindek, Elbek yaratgan masallarning badiiy xususiyatlari, ularning mazmun-mohiyatiga ham qisman bo‘lsa-da e‘tibor qaratilgan.

**Kalit so‘zlar:** masalnavislik, lirik kompozitsiya, masal tabiati, masal qahramonlari, tavsiflanayotgan joy va makon, badiiy komponentlar tizimi, badiiy g‘oya va h.k

## ELBEK – PARABLE WRITER

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### Abstract

This article discusses the fable writing skills of Elbek, one of the creators of the new era. In addition, the artistic features of the fables created by Elbek, as well as their content and essence, are also partially paid attention to.

**Keywords:** fable writing, lyrical composition, nature of the fable, heroes of the fable, the place and space being described, the system of artistic components, artistic idea, etc.

Elbek – Mashriq Yunusov 1898-yil Toshkent viloyati Bo‘stonliq tumanining Xumson qishlog‘ida kambag‘al dehqon oilasida dunyoga kelgan. Oilaviy sharoiti og‘ir bo‘lgan Elbek hamda uning qolgan 5 qondoshi ish qidirib turli shahar va qishloqlarga ketadi. Yozuvchi o‘zining sarson-sargardonlikda o‘tgan yoshlik yillarini, og‘ir hayotini shunday ifodalaydi:

Qarol bo‘lib ishladim,

Bit burda non tishladim.

Turmushim kun-kun og‘ir,

Bo‘ldi, yiqildim axir.

Keksa qari otamni

Mungli boyqish onamni

O‘z holiga tashladim.

Shaharga yo‘l boshladim.

Biroq qorin to‘yg‘izish,

Bundan ham og‘ir bo‘ldi.

Kimsalarga sarg‘ayib,

Guldek yuzlarim so‘ldi.

Ammo shunday qiyinchiliklarga bardosh bera oldi, savod chiqardi, Fitratning shogirdiga aylandi, Cho‘lpon she‘rlariga ergashib ijod qildi.

Elbekning ijodi Haydarali Uzoqov, Nurmuhammad Qobulov, Salohiddin Mamajanov, Sherali Turdiyev, Rahmatilla Inog‘omov, Tohir Qahhor, Siddiq Asqarov, Abul Bozorov, Ahmad Aliyev, G‘afurjon Mahmudov, Jo‘ra Xudoyberdiyev, Hilola Zoirova, Gulchehra Aliyev, Ibrohim Rahim, Ashurali Zohiriy, Ulug‘bek Dolimov va boshqa tadqiqotchilar tomonidan o‘rganilgan.

Tarixshunos Haydarali Uzoqov Elbekning “Momaguldurak” to‘plamini 1993-yilda, “Tanlangan asarlar”ni 1989-yilda chop ettirdi. Folklorshunos Ulug‘bek Amonov “Armug‘on yolqinlar” to‘plamini 2017-yilda nashr ettirdi.

“Armug‘on yolqinlar” to‘plamida Elbekning 2ta to‘plami 1921-yildagi “Armug‘on” va 1925-yilda nashr qilingan “Yolqinlar” to‘plami arab yozuvidan amaldagi yozuvga tabdil qilinib tahlil qilingan. Elbekning dastlabki to‘plami “Armug‘on”dagi masallar bolalar uchun yaratilgan, bolalarni yaxshilik bilan yomonlikni ajratishga, aql, odob-axloq bilan ish yuritishga qaratilgani bilan diqqatga sazovordir. To‘plamga 17ta she‘r kiritilib ular o‘z ruhiga ko‘ra masallar sanaladi. Ular quyidagilar: “Bir ikki so‘z”, “Qaysi biri bo‘ri?!””, “Kuchsizlar dunyosi”, “Sichqonlar kengashi”, “Quyruqsiz maymun”, “Maymunning qoziligi”, “Jinning olov yoqishi”, “Chol bilan kampir”, “Kim aldanchi?”, “Kampirning tovuqlari”, “Ikki tulki”, “Itlarning o‘rtoqligi”, “Olaqarg‘a bilan qurbaqa”, “Qo‘ychi bilan bo‘ri”, “Kemachi bilan Hakim”, “Ongli eshak”, “Sichqonning qiz uzatishi”.

Elbek ham:

Ishlamasdan oziq topish,

Baxtli bo‘lish,

Bizcha, tubanlikdir,

Undan yaxshi o‘lish!..

- deya xalqni ezgulikka, mehnatsevarlikka undagan jaded adiblarimizdan biridir. Tarixshunos Haydarali Uzoqov adib ijodining qirralari xususida gapirar ekan, uning birinchi o‘zbek masalnavisi ekanligini o‘sha davrning yetuk adabiyotshunosi A.Sa‘diy mulohazalari bilan tasdiqlaydi: “Masalchilikni Elbek boshlab berdi. Tarjima yo‘li bilan emas, balki masalchilikni tug‘dirish yo‘lini tutdi. Hali bu yo‘lda undan boshqa odam ko‘rinmagan”. Darhaqiqat, Elbek o‘sha davrning ilk masalnavisi edi. Uning barcha

masallari o‘quvchiga nimadir o‘rgatadi, nimadir uqtiradi. Shunday masallaridan biri bu “Olaqarg‘a bilan qurbaqa”. Masal qahramonlari sarlavhadan bizga ma‘lum bo‘ladi.

Olaqarg‘a bir kun ko‘ldan qurbaqani,

Tutib ketdi, yemak uchun suyunib uni.

Borib qo‘ndi bir bog‘chaning butog‘iga,

Boqibgina qurbaqaning har yog‘iga.

Demak, olaqarg‘a bechora, sho‘rtumshuq qurbaqani tutib olibdi. O‘lishiga aql-u farosati yetgan qurbaqajon ziyorlik qilib, tadbirkorlik yo‘lini qilibdi.

Dedi: Ey barcha qushning sen go‘zali,

Dunyoda ko‘rmadim men sendayin qushni.

Qani, bir oz sayrab bergil, men eshitay,

Borliq tovshi bilan og‘zin katta ochdi,

Qurbaqa ham yerga tushib sekin qochdi.

Ko‘rinib turganidek, yozuvchi kitobxonga topqir bo‘lish har qanday vaziyatdan chiqib keta olish ekanligini isbotlagan.

Elbekning “Kemachi ila Hakim” masali ham alohida e‘tiborga loyiq. Masal qahramonlaridan bir zo‘r hakim yer yuzini aylanish maqsadida yo‘lga otlandi. Bir kemaga o‘tirib, kemachi bilan so‘zlashib borayotgan edi:

... Eng so‘nggida so‘z “o‘qush”ga kelib yetgan:

O‘quv – yozuv bilasizmi, ey o‘rtog‘im,

O‘qimag‘anning holi yomon, bizga ma'lum.

O‘qib-o‘rganish haqida gap ketayotgan mahal, dengiz to‘lqinlari kemani to‘ntairishiga oz qoldi:

Kemachi hakim tomon boqib, dedi:

Dengizda suzishni hech bilasizmi,

Dengizda suzishni hech bilmayman.

Yo‘qsa ketmish bor umringiz bo‘sh-bo‘shga,

Rozi bo‘ling siz ham endi bo‘lar ishga.

Qissadan hissa shuki, har doim ham bilimli donishmand bo‘lish insonga qo‘l kelavermaydi, shuning uchun borliqda duch kelishimiz mumkin bo‘lgan xavf-xatarlarning ehtiyot choralarini ko‘rib qo‘ymoqlik hech zarar qilmaydi. But haqida o‘ylab ko‘rmagan zo‘r hakim suzishni bilmaganligi sababli dengiz to‘lqinlari oldida chorasiz qoldi.

Bolalar ruhiyatini qalbdan his qila olgan yozuvchining xalq og‘zaki ijodiga xos motivni zamonaviy talqinda ifodalay olgan yana bir masali – “Sichqonxonning qiz uzatishi”.

Asar markazida sichqonlar oilasi va ularning qiz uzatish sahnasi turadi. Sichqonxon o‘z suluv qizini dunyodagi eng qo‘qmas, kuchli, kelishgan tadbirli bir yigitga

uzatmoqchi bo‘ladi. Ular ushbu niyatda ko‘pchilikning huzurida bo‘lishadi. Dastlab Quyoshga murojaat qilishadi:

Yolg‘iz sizmish bu dunyoda

Oshiqlardan kuchlilikda bittagina.

Quyosh:

Men kuchsizman, ko‘kda bo‘lgan bu bulutdan,

Oldim to‘ssa qutulolmam hech undan.

Shundan so‘ng ular Bulutga borishadi, Bulut esa Shamolni kuchli deb ko‘rsatadi, Shamol esa Tog‘ni...

Biroq yakunda Tog‘:

Qayda menda topilsun kuch,

Sirtim butun bo‘lg‘an bilan ichimdur puch,

Chunki mening ichimni bir yigit sichqon.

Ko‘pdan beri kovlab katta uya qurgan.

Kovlay bersa, ul har kuni agar shunday,

Tez kun ichida yurolmayin yiqilaman.

Masal so‘nggida Sichqonxon qizini o‘sha o‘z turiga mos sichqon yigitga uzatadi. Ushbu masalda chuqur ramziy ma‘no yotadi. Asarda hayotiy haqiqat har kim o‘z turiga munosib bilan hayot qurishi lozimligi haqida ibratli g‘oya ilgari suriladi. Masal orqali yozuvchi me‘yor va mantiqqa asoslangan tanlov muhimligini uqtiradi.

Xulosalaganda, Elbek masallarida ramziy ifoda, badiiy vositalarning sodda, ammo chuqur ma‘noli qo‘llanilishi orqali yuksak axloqiy-falsafiy g‘oyalari ilgari suriladi. Bu masallar o‘quvchini teran fikrlashga, tadbirli bo‘lishga, o‘zlikni anglashiga o‘rgatadi.

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## МОДЕЛЬ РАЗВИТИЯ КРИТИЧЕСКОГО МЫШЛЕНИЯ У СТУДЕНТОК НА ОСНОВЕ ГЕНДЕРНОГО ПОДХОДА

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### Аннотация

В данной статье научно-теоретически анализируется модель развития критического мышления у студенток на основе гендерного подхода. В исследовании рассматриваются педагогические и психологические основы формирования критического мышления, внедрение принципов гендерного равенства в образовательный процесс, а также возможности развития у студенток навыков самостоятельного принятия решений, анализа проблемных ситуаций и повышения социальной активности. Предлагаемая модель направлена на повышение эффективности образования, обеспечение гендерного равенства и развитие интеллектуального и личностного потенциала студенток на основе интеграции теоретических подходов и практических механизмов.

**Ключевые слова:** Гендерный подход, студентки, критическое мышление, педагогическая модель, психологические факторы, самостоятельное принятие решений, социальная активность, инновационное образование, гендерное равенство, интеллектуальный потенциал

В условиях глобализации повышение интеллектуального потенциала студенческой молодежи, в частности студенток, и развитие у них навыков самостоятельного и критического мышления является одним из приоритетных направлений государственной политики. В Республике Узбекистан принят ряд нормативно-правовых документов, направленных на обеспечение гендерного равенства, защиту прав и интересов женщин, а также стимулирование их активного участия в научной и общественной жизни. В частности, Закон Республики Узбекистан от 2 сентября 2019 года «О гарантиях равных прав и возможностей для женщин и мужчин» закрепил гендерное равенство как один из приоритетов государственной политики.

Кроме того, в «Стратегии обеспечения гендерного равенства в Республике Узбекистан на 2020–2030 годы», утвержденной постановлением Президента от 7 марта 2020 года № ПП–4653, особое внимание уделяется интеллектуальному развитию девушек и формированию у них навыков самостоятельного мышления. Закон «Об образовании» (2020) и указы Президента о развитии науки и

инноваций создают широкие возможности для применения современных педагогических и психологических подходов в образовательном процессе, направленных на развитие творческого и критического мышления молодежи.

Особенно актуальной задачей становится применение гендерного подхода в системе высшего образования, что позволяет формировать у студенток навыки самостоятельного принятия решений, анализа проблемных ситуаций и оценки различных точек зрения.

Проблема развития критического мышления у студенток на основе гендерного подхода рассматривается как одна из актуальных научных задач современной педагогики, психологии и социальных наук.

Критическое мышление способствует:

- самостоятельному принятию решений;
- анализу информации;
- поиску альтернативных решений;
- осознанному отношению к социальным процессам.

Гендерный подход предполагает учет социально-психологических, культурных и правовых различий между юношами и девушками, а также создание равных условий для раскрытия потенциала студенток.

Особое значение имеет преодоление гендерных стереотипов и формирование у девушек активной жизненной позиции. Модель развития критического мышления у студенток включает несколько ключевых компонентов:

### **1. Мотивационный компонент**

Формирование внутренней потребности в критическом мышлении, стимулирование интереса к обучению и социальной активности.

### **2. Содержательный компонент**

Включение в образовательные программы элементов анализа, проблемных ситуаций, сравнений различных точек зрения и аргументированного вывода.

### **3. Методико-практический компонент**

Использование интерактивных методов:

- дебаты,
- дискуссии,
- кейс-стади,
- мозговой штурм.

#### **4. Результативный компонент**

Оценка уровня сформированности критического мышления, социальной активности и способности к самостоятельному принятию решений.

Теоретической основой модели являются идеи:

таксономии Блума, концепции Дж. Дьюи, критической педагогики П. Фрейре. Международный опыт показывает, что в странах, таких как США, Канада, Великобритания и страны Скандинавии, гендерное равенство является важным элементом образовательной политики.

В учебные программы включены курсы:

Gender Studies , Critical Thinking , Analytical Communication

В Узбекистане также реализуются:

- научные конференции,
- тренинги,
- программы наставничества для студенток.

С точки зрения психологии, развитие критического мышления связано с: когнитивным развитием, мотивацией, социальной средой.

Теории Ж. Пиаже и Л. Выготского подтверждают, что студент должен быть активным участником образовательного процесса.

Преподаватель выступает не только источником знаний, но и наставником и партнером в обучении.

Проведенный анализ показывает, что развитие критического мышления у студенток на основе гендерного подхода является важным фактором не только образовательного процесса, но и социального развития общества.

Данная модель способствует:

- повышению интеллектуального потенциала;
- развитию самостоятельного мышления;
- формированию социальной активности;
- укреплению гендерного равенства.

Использование интерактивных методов, современных технологий и создание благоприятной образовательной среды позволяет эффективно реализовать данный подход.

Таким образом, предложенная модель имеет важное научно-практическое значение и способствует формированию активной, самостоятельной и социально ответственной личности.

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