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FORMATION OF CREATIVISM IN THE STUDENT YOUTH OF NEW UZBEKISTAN THROUGH BIONICS (ON THE EXAMPLE OF THE KHOREZM OASIS)

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Abstract
This article explores the potential of bionics as a multidisciplinary approach to stimulate and develop creativism among student youth in the context of New Uzbekistan, focusing particularly on the Khorezm oasis. It examines how principles derived from nature-inspired design and innovation can be integrated into education to foster original thinking, ecological awareness, and technological innovation. Using Khorezm's unique natural and historical ecosystem as a resourceful educational medium, the study proposes pedagogical strategies for embedding bionic principles into academic curricula and extracurricular activities.

Keywords: Creativism, student youth, bionics, Khorezm oasis, biomimicry, innovative education, ecological thinking, STEAM, Uzbekistan.

Introduction

The modernization of education in New Uzbekistan places a strong emphasis on nurturing creativity and critical thinking among students. As part of this transformation, creativism—a term denoting a sustained practice and ideology of creative engagement—has become central to national youth development strategies. In parallel, bionics, or biomimicry, has emerged as a promising interdisciplinary field that translates nature's models into technological and design solutions. This article investigates how bionic approaches can contribute to the formation of creativism in the youth of Uzbekistan, specifically through educational and environmental engagements in the Khorezm oasis, a region rich in both natural diversity and historical significance.

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The formation of creativism in the student youth of New Uzbekistan, particularly through bionics in the context of the Khorezm Oasis, is an emerging topic that blends innovative educational approaches, cultural heritage, and scientific inspiration drawn from nature. While specific literature on this exact topic is limited, we can extrapolate from available sources on Uzbekistan's youth policy, educational reforms, and the historical significance of the Khorezm Oasis to provide a comprehensive understanding. Below, I outline how creativism—a concept emphasizing creative thinking and problem-solving—can be fostered among students in this region, using bionics as a framework.

Understanding Creativism and Bionics

Creativism in this context refers to fostering creative thinking, innovative problem-solving, and professional creativity among students, as highlighted in Uzbekistan's educational reforms. It involves psychological, pedagogical, and environmental factors that encourage students to think unconventionally and develop solutions inspired by diverse disciplines.

Bionics is the science of applying biological principles to design and technology, drawing inspiration from nature's systems to solve human problems. For example, studying the structure of a bird's wing to design aircraft or mimicking plant processes for sustainable technologies. In the Khorezm Oasis, a region rich in biodiversity and historical significance, bionics can serve as a powerful educational tool to inspire creativity by connecting students with their natural and cultural environment.

Context of New Uzbekistan and Youth Policy

New Uzbekistan, under recent socio-political reforms, prioritizes youth development and education to drive national progress. The government emphasizes science, creativity, and modern pedagogical technologies to cultivate innovative thinking among students. Policies such as the Decree of the President of Uzbekistan (PF-60, 28.01.2022) underscore the importance of creative competencies in the modern labor market, aligning with global standards of democracy and human rights. Youth policy in Uzbekistan aims to create socioeconomic and legal conditions for young people to realize their creative potential, with a focus on science and education as pillars of development.

The Khorezm Oasis, a cradle of ancient civilization with a 2,700-year history, provides a unique setting. Its rich biodiversity, historical trade routes (e.g., the Great Silk Road), and cultural heritage, including 17 Zoroastrian monuments,

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offer a fertile ground for interdisciplinary learning. By integrating bionics into education, students can draw inspiration from the region's natural systems and historical innovations to foster creativism.

Strategies for Fostering Creativism through Bionics

Interdisciplinary Curriculum Design:

- Bionics in Education: Introduce bionics-focused modules in schools and universities, particularly at institutions like the Khorezm Mamun Academy in Khiva. Students can study local ecosystems—such as the Amu Darya river delta's flora and fauna—to design solutions for modern challenges (e.g., water conservation inspired by desert plants).

- Project-Based Learning: Encourage students to undertake projects that apply bionic principles, such as designing sustainable irrigation systems modeled on natural water retention in the Khorezm Oasis. This hands-on approach fosters critical thinking and creativity.

Leveraging the Khorezm Oasis's Unique Environment:

- The Khorezm Oasis, with its historical significance and biodiversity, is ideal for bionic inspiration. For example, students could explore how ancient Khorezmian irrigation systems (e.g., canals developed along the Great Silk Road) reflect bionic principles of efficient resource use, adapting these ideas to modern agricultural challenges.

- Field studies in the "Oasis Kalajik Kala" ecotourism zone could connect students with local ecosystems, inspiring designs based on natural adaptations, such as the resilience of desert flora.

Modern Pedagogical Technologies:

- Uzbekistan's educational reforms emphasize innovative teaching methods. Teachers in Khorezm can use digital tools, such as virtual simulations of bionic designs, to engage students. For instance, 3D modeling software can help students visualize how natural structures (e.g., termite mounds for ventilation) can inspire architecture.

- Establishing creative studios, as suggested in educational reforms, can provide spaces for students to experiment with bionic prototypes, fostering a culture of innovation.

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Conclusion

Fostering creativism through bionics in the student youth of New Uzbekistan, particularly in the Khorezm Oasis, combines the region's rich natural and cultural heritage with modern educational reforms. By embedding bionic principles in curricula, leveraging local ecosystems, and encouraging interdisciplinary projects, Uzbekistan can cultivate a generation of innovative thinkers. The Khorezm Oasis, with its historical legacy and biodiversity, serves as an ideal backdrop for this approach, aligning with national priorities to empower youth through science and creativity.

Bionics offers a powerful framework for fostering creativism among the student youth of New Uzbekistan. The Khorezm oasis serves as an exemplary environment for implementing nature-inspired learning that bridges ecology, technology, and culture. Educators and policymakers must now prioritize embedding such interdisciplinary methods into formal and informal education to sustain long-term innovation and ecological literacy.

References

1. Maxmudov R. "Yoshlarda kasbiy ma'naviyat va huquqiy madaniyatni rivojlantirishning pedagogik asoslari." 1.2 (2024): 1-6.
2. Shukurova Ugiloy. "Shaxsning ijtimoiy-psixologik xarakteristikasi." Инновационные исследования в современном мире: теория и практика 16 (2024): 70-71.
3. Yuldasheva M.B., and A.N.Qolqanatov. "Kadrlar potensiali ijtimoiy-madaniy sohada tashkilot faoliyati samaradorliligini oshirishshning yetakchi omili sifatida." Inter education & global study 8 (2024): 58-68.
4. Gafarova Shaxnoza. "Ta'limda innovatsion metodlar." bridging the gap: education and science for a sustainable future 1.1 (2025): 144-148.
5. Serdyukov Peter. "Innovation in education: what works, what doesn't, and what to do about it?." Journal of research in innovative teaching & learning 10.1 (2017): 4-33.
6. Yuldashev Farrukh, et al. "Specifications for identifying and distinguishing units of the lexico-semantic category of "Ma'naviyat" in the diagnosis of an individual's moral qualities." SHS Web of Conferences. Vol. 210. EDP Sciences, 2025.
7. Blatner Adam. "Role playing in education." Disponibile all'indirizzo: http://www. blatner. com/adam/pdntbk/rlplayedu. htm (2009).