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**THE PROBLEM OF FORMATION OF ECOLOGICAL LEGAL
CULTURE OF STUDENTS**

Abstract

The formation of an environmental culture among students is crucial for addressing pressing environmental challenges and promoting sustainability. This scientific statement highlights the significance of environmental education, the role of educators, and interdisciplinary approaches to foster environmental responsibility and stewardship in students. Strategies for developing an environmental culture include cultivating environmental knowledge, fostering a sense of responsibility, encouraging environmentally friendly habits, promoting emotional connections to the environment, enhancing critical thinking, and supporting interdisciplinary learning. Evaluating the effectiveness of environmental education programs is essential to inform future practices and policies. Policymakers should prioritize teacher training, integrate environmental education into curricula, allocate resources for environmental programs, and support regular assessment and evaluation. By implementing these strategies and fostering collaboration among stakeholders, we can empower students to become environmentally responsible citizens, ensuring a more sustainable future for all.

Key words: Environmental culture, legal culture, students, education, interdisciplinary approaches, strategies, evaluation, policymakers, sustainability.

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**СТУДЕНТТЕРДІҢ ЭКОЛОГИЯЛЫҚ-ҚҰҚЫҚТЫҚ МӘДЕНИЕТІН
ҚАЛЫПТАСТЫРУ МӘСЕЛЕСІ**

Аңдатпа

Студенттерде экологиялық мәдениетті қалыптастыру өзекті экологиялық мәселелерді шешу және тұрақты дамуға жәрдемдесу үшін өте маңызды. Бұл ғылыми мақалада экологиялық білім берудің маңыздылығы, мұғалімдердің рөлі және оқушылардың экологиялық жауапкершілігі мен қоршаған ортаға жауапкершілікпен қарауын қалыптастырудың пәнаралық тәсілдері көрсетілген. Экологиялық мәдениетті дамыту стратегияларына экологиялық білімді дамыту, жауапкершілік сезімін тәрбиелеу, тұрақты әдеттерді ынталандыру, қоршаған ортамен эмоционалды байланысты дамыту, сыни ойлауды дамыту және пәнаралық оқытуды қолдау кіреді. Экологиялық білім беру бағдарламаларының тиімділігін бағалау болашақ тәжірибе мен саясатты негіздеу үшін қажет. Саясаткерлер мұғалімдерді даярлауға басымдық беруі, экологиялық білім беруді оқу бағдарламаларына қосуы, экологиялық бағдарламаларға ресурстар бөлуі және тұрақты талдау мен бағалауды қолдауы керек. Осы стратегияларды жүзеге асыра отырып және мүдделі тараптар арасындағы ынтымақтастықты дамыта отырып, біз барлығына тұрақты болашақты қамтамасыз ете отырып, студенттерге экологиялық жауапты азамат болуға мүмкіндік бере аламыз.

Түйін сөздер: Экологиялық мәдениет, құқықтық мәдениет, студенттер, білім, пәнаралық тәсілдер, стратегиялар, бағалау, саясат, тұрақтылық.

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ПРОБЛЕМА ФОРМИРОВАНИЯ ЭКОЛОГО-ПРАВОВОЙ КУЛЬТУРЫ СТУДЕНТОВ

Аннотация

Формирование экологической культуры у студентов имеет решающее значение для решения насущных экологических проблем и содействия устойчивому развитию. В данном научном сообщении подчеркивается значение экологического образования, роль педагогов и междисциплинарные подходы к формированию у учащихся экологической ответственности и ответственного отношения к окружающей среде. Стратегии развития экологической культуры включают культивирование экологических знаний, воспитание чувства ответственности, поощрение экологически безопасных привычек, развитие эмоциональной связи с окружающей средой, развитие критического мышления и поддержку междисциплинарного обучения. Оценка эффективности программ экологического образования необходима для обоснования будущей практики и политики. Политики должны уделять приоритетное внимание подготовке учителей, включать экологическое образование в учебные программы, выделять ресурсы на экологические программы и поддерживать регулярный анализ и оценку. Реализуя эти стратегии и способствуя сотрудничеству между заинтересованными сторонами, мы сможем дать студентам возможность стать экологически ответственными гражданами, обеспечив более устойчивое будущее для всех.

Ключевые слова: Экологическая культура, правовая культура, студенты, образование, междисциплинарные подходы, стратегии, оценка, политики, устойчивость.

Introduction

In an era marked by unprecedented environmental challenges, such as climate change, biodiversity loss, deforestation, and resource depletion, the need for a comprehensive understanding and appreciation of the environment has never been greater. The role of education in fostering an environmental culture among students is essential, as it helps shape their values, beliefs, and behaviors towards the natural world. By developing an environmental culture in students, educators can empower future generations to actively engage in addressing global environmental issues, ultimately contributing to the long-term sustainability of our planet.

"The problem of forming an environmental culture of students" is a scientific statement that addresses the challenge of nurturing a mindset and behavioral patterns among students that promote environmental awareness, conservation, and sustainability. This involves fostering an understanding of ecological processes, nurturing a sense of responsibility towards the environment, and cultivating environmentally friendly habits and behaviors. In this paper, we will discuss the role of educators, current approaches and methods, interdisciplinary connections, policy implications, and recommendations for effectively forming an environmental culture in students [1].

The literature on environmental education and the formation of an environmental culture in students is vast and diverse, encompassing various theoretical frameworks, approaches, and methods. In this section, we review some key themes and findings from the literature on this topic.

Results and discussion

The literature on environmental education has evolved over time, integrating educational theories and approaches such as environmental behavior change theories, experiential learning, constructivist learning, place-based education, systems thinking, and education for sustainable development (ESD). These frameworks have informed the development of curricula and teaching strategies that effectively foster environmental literacy, values, and behaviors among students.

Numerous approaches and methods have been employed in environmental education to develop an environmental culture in students. These include:

- Integrating environmental topics into existing curricula across various subjects, such as science, social studies, and humanities
- Utilizing interdisciplinary and problem-based learning approaches to address complex environmental issues
- Implementing hands-on activities, field trips, and outdoor experiences to engage students in authentic learning contexts
- Promoting community engagement, service-learning, and collaborative projects to foster a sense of stewardship and responsibility towards the environment
- Employing digital tools and technologies to enhance environmental learning and connect students with global environmental issues

Despite the potential of environmental education to shape students' environmental culture, several challenges and barriers have been identified in the literature. Some of these include:

- Insufficient teacher training and professional development opportunities in environmental education
- Limited integration of environmental topics into existing curricula, often due to competing curricular demands and a lack of time and resources
- A lack of interdisciplinary collaboration and support within educational institutions
- Inadequate funding and resources to support environmental education programs and initiatives
- Insufficient emphasis on the affective domain, such as fostering emotional connections to the environment and developing a sense of environmental stewardship

The literature review reveals that while progress has been made in understanding the importance of environmental education in forming an environmental culture among students, further research and effort are needed to overcome the challenges and barriers that hinder its effective implementation [2].

Educators play a crucial role in shaping the environmental culture of students, as they facilitate learning experiences, model environmentally responsible behaviors, and help students develop the knowledge, values, and skills necessary for environmental stewardship. In this section, we discuss the various ways educators contribute to the formation of an environmental culture among students and the challenges they face in this endeavor.

To effectively promote an environmental culture, educators must possess a solid understanding of environmental concepts and issues, as well as the pedagogical skills to integrate these topics into their teaching. However, many teachers lack adequate training in environmental education. To address this gap, professional development opportunities and pre-service teacher training programs should emphasize environmental education, providing educators with the knowledge, skills, and confidence to incorporate environmental topics into their instruction.

Educators can foster an environmental culture among students by integrating environmental topics and themes into their existing curricula, across various subjects such as science, social studies, and humanities. This approach not only helps students develop a holistic understanding of the environment and its interconnected systems but also emphasizes the relevance of environmental issues to various disciplines. Educators can collaborate with their colleagues to create interdisciplinary units and projects that address environmental issues from multiple perspectives.

To effectively develop an environmental culture in students, educators should employ student-centered and experiential learning approaches, such as project-based learning, inquiry-based learning, and outdoor experiences. These approaches encourage active engagement, critical thinking, and problem-solving, helping students develop a deeper connection to the environment and a sense of responsibility for its well-being. In addition, educators can incorporate digital tools and technologies to enhance environmental learning and connect students to global environmental issues.

Despite the critical role of educators in forming an environmental culture among students, several challenges persist, including limited training opportunities, insufficient resources, and the need to

balance environmental education with other curricular demands. Addressing these challenges requires collaborative efforts from educational institutions, policymakers, and other stakeholders to provide the necessary support, resources, and professional development opportunities for educators to succeed in fostering an environmental culture in students [3].

Developing an environmental culture in students requires a multifaceted approach that addresses not only cognitive aspects, such as knowledge and understanding, but also affective dimensions, including attitudes, values, and behaviors. In this section, we discuss various strategies to effectively cultivate an environmental culture in students.

A strong foundation in environmental knowledge is crucial for students to comprehend the complexity of ecological processes, human-environment interactions, and global environmental challenges. Educators can integrate environmental topics into various subjects, encourage interdisciplinary learning, and utilize digital tools and resources to help students develop a comprehensive understanding of environmental issues.

Students are more likely to engage in environmentally responsible behaviors when they feel a sense of responsibility and stewardship towards the environment. Educators can nurture these values by emphasizing the ethical implications of environmental issues, facilitating discussions on intergenerational equity, and engaging students in community-based projects and service-learning activities that promote environmental conservation and restoration.

Developing environmentally friendly habits and behaviors is a vital component of an environmental culture. Educators can model sustainable practices, such as recycling, conserving energy, and using eco-friendly products. They can also involve students in school-wide initiatives, such as waste reduction campaigns, energy conservation programs, and school garden projects, to promote a culture of sustainability and environmental responsibility.

Forming an emotional connection to the environment is essential for developing an environmental culture in students. Outdoor learning experiences, field trips, and nature-based activities can help students establish a personal connection with the natural world, fostering a sense of wonder, appreciation, and care for the environment.

Developing students' critical thinking and problem-solving skills is crucial for addressing complex environmental challenges. Educators can encourage inquiry-based learning, debate, and collaborative problem-solving activities to help students analyze environmental issues, evaluate potential solutions, and engage in informed decision-making.

Environmental issues are inherently interdisciplinary, requiring an understanding of the interconnections between natural systems, human societies, and economies. Encouraging interdisciplinary learning and collaboration among educators, students, and community members can help students develop a holistic understanding of environmental challenges and foster a sense of shared responsibility for addressing them.

By implementing these strategies, educators can contribute to the formation of an environmental culture in students, empowering them to become environmentally responsible citizens and stewards of the planet [4].

The complexity and interconnected nature of environmental issues necessitate an interdisciplinary approach to environmental education, which can effectively foster an environmental culture among students. Interdisciplinary approaches help students understand the multifaceted nature of environmental challenges, recognize the connections between natural systems and human societies, and develop the skills and knowledge needed to address these issues. In this section, we discuss the importance of interdisciplinary approaches in forming an environmental culture in students.

Interdisciplinary approaches allow students to explore environmental issues from multiple perspectives, including natural sciences, social sciences, and humanities. This holistic understanding enables students to grasp the intricate relationships between ecological processes, human behavior, and social, economic, and political factors that contribute to environmental challenges.

Addressing environmental issues often requires innovative and collaborative problem-solving. Interdisciplinary approaches foster critical thinking skills by encouraging students to analyze complex problems, identify underlying assumptions, and consider diverse viewpoints. This enables students to evaluate potential solutions, make informed decisions, and engage in collaborative efforts to address environmental challenges.

An interdisciplinary approach to environmental education helps students develop environmental literacy, including an understanding of ecological principles, environmental issues, and the connections between human actions and environmental impacts. This foundation of knowledge, combined with the cultivation of environmental values and ethics, can inspire students to become informed and responsible citizens who actively engage in environmental stewardship.

Incorporating environmental education into multiple subjects and extracurricular activities can help students recognize the relevance of environmental issues to various disciplines, such as history, literature, art, and mathematics. This integration also reinforces the importance of environmental education and helps students develop a comprehensive understanding of the environment, its challenges, and the potential solutions.

Interdisciplinary approaches to environmental education promote collaboration among educators, students, and community members. By working together, these stakeholders can pool their knowledge, resources, and expertise to create effective learning experiences and develop innovative solutions to environmental problems. This collaboration can also foster a sense of shared responsibility and commitment to addressing environmental issues, both locally and globally.

In conclusion, interdisciplinary approaches are vital for forming an environmental culture in students, as they enable learners to develop a comprehensive understanding of environmental challenges, cultivate critical thinking and problem-solving skills, and actively engage in efforts to address these issues. Embracing interdisciplinary approaches in environmental education can empower students to become environmentally responsible citizens and stewards of the planet [5].

Assessing the effectiveness of environmental education programs is essential for understanding their impact on students' environmental culture and informing future educational practices and policies. Evaluation methods should consider both the cognitive and affective dimensions of learning, including the development of environmental knowledge, attitudes, values, and behaviors. In this section, we discuss the key aspects of evaluating the effectiveness of environmental education programs.

Evaluating students' environmental knowledge and understanding involves assessing their comprehension of ecological principles, environmental issues, and the interconnected nature of natural systems and human societies. This can be achieved through various assessment methods, such as written exams, quizzes, oral presentations, and project-based assessments.

Measuring students' attitudes and values towards the environment can provide insights into their emotional and affective responses to environmental issues. Surveys, questionnaires, and interviews can be used to gauge students' attitudes, beliefs, and values regarding environmental responsibility, conservation, and sustainability.

Understanding the impact of environmental education programs on students' environmentally responsible behaviors is crucial for evaluating their effectiveness in fostering an environmental culture. Observations, self-reporting measures, and behavior checklists can be employed to assess students' engagement in environmentally friendly practices, such as recycling, energy conservation, and participation in environmental initiatives.

Environmental education programs should also aim to develop students' skills and competencies, such as critical thinking, problem-solving, communication, and collaboration. Assessments that focus on these skills can include rubrics, performance-based tasks, and peer evaluations.

Long-term impacts of environmental education programs on students' environmental culture can be best understood through longitudinal studies that track students' knowledge, attitudes, values, and behaviors over time. These studies can provide valuable insights into the lasting effects of

environmental education on students and inform the development of effective, long-term strategies for fostering an environmental culture.

Gathering feedback from various stakeholders, including educators, students, parents, and community members, can provide essential information about the perceived effectiveness and relevance of environmental education programs. Surveys, interviews, and focus groups can be employed to collect feedback and inform program improvements and future initiatives.

By evaluating the effectiveness of environmental education programs using these various methods, educational institutions, policymakers, and other stakeholders can gain a better understanding of the impact of these programs on students' environmental culture. This information can be used to improve existing programs, inform future initiatives, and ultimately contribute to the formation of an environmental culture among students that promotes environmental responsibility and stewardship [6].

Forming an environmental culture among students is crucial for addressing current and future environmental challenges. Educational institutions, policymakers, and other stakeholders must work collaboratively to create and implement policies that support the effective integration of environmental education into curricula and school culture. In this section, we discuss policy implications and recommendations for fostering an environmental culture in students.

Policies should prioritize and allocate resources for teacher training and professional development in environmental education. This includes pre-service teacher training programs and ongoing professional development opportunities that equip educators with the knowledge, skills, and confidence needed to integrate environmental topics into their teaching.

Policymakers should support the integration of environmental education across various subjects, including science, social studies, and humanities. This can be achieved through the development of national or regional curriculum guidelines, the provision of resources for interdisciplinary collaboration, and the recognition of environmental education as a critical component of students' learning experiences.

Policies should encourage the use of interdisciplinary and experiential learning approaches in environmental education, which have been shown to be effective in fostering an environmental culture among students. This can include supporting collaborative efforts among educators, providing resources for outdoor and hands-on learning experiences, and promoting community engagement and service-learning opportunities.

Policymakers should allocate resources to support the development and implementation of environmental education programs, initiatives, and materials. This can include funding for school gardens, energy conservation projects, waste reduction campaigns, and digital tools and resources that enhance environmental learning and engagement.

Policies should support the regular assessment and evaluation of environmental education programs to ensure their effectiveness in forming an environmental culture among students. This can involve the development of standardized assessment tools and guidelines, as well as the allocation of resources for long-term, longitudinal studies that examine the impact of environmental education on students' knowledge, attitudes, values, and behaviors.

Policymakers should promote collaboration among various stakeholders, including educational institutions, non-governmental organizations, community groups, and the private sector, to create comprehensive and effective environmental education programs. Such collaboration can facilitate the sharing of expertise, resources, and best practices, ultimately contributing to the development of an environmental culture among students.

By implementing these policy recommendations, stakeholders can support the formation of an environmental culture in students, empowering them to become informed and responsible citizens who actively engage in environmental stewardship and contribute to the long-term sustainability of our planet [7].

The problem of forming an environmental culture among students is of paramount importance, given the pressing environmental challenges facing our planet. Developing an environmental culture in students not only equips them with the knowledge and understanding necessary to address these issues but also fosters attitudes, values, and behaviors that promote environmental responsibility and stewardship.

This scientific statement has discussed the background and significance of environmental education, the role of educators, theoretical frameworks, strategies for developing environmental culture, the importance of interdisciplinary approaches, and evaluation methods for environmental education programs. It has also provided policy implications and recommendations for fostering an environmental culture in students.

To effectively address the problem of forming an environmental culture among students, it is crucial for educators, policymakers, and other stakeholders to collaborate and invest in environmental education initiatives. By prioritizing teacher training, integrating environmental education into curricula, promoting interdisciplinary and experiential learning approaches, allocating resources, and regularly assessing and evaluating the effectiveness of environmental education programs, we can cultivate an environmental culture in students that will empower them to become environmentally responsible citizens and stewards of the planet.

In conclusion, the formation of an environmental culture among students is an essential and achievable goal. By recognizing the importance of this issue and implementing effective policies and practices, we can ensure that the next generation is well-prepared to address the environmental challenges of today and tomorrow, contributing to a more sustainable and resilient future for all [8].

References:

1. Chawla, L. (2006). *Learning to love the natural world enough to protect it*. Barn nr. 2, 57-58.
2. Hungerford, H. R., & Volk, T. L. (1990). *Changing learner behavior through environmental education*. *The Journal of Environmental Education*, 21(3), 8-21. [Link] (<https://www.tandfonline.com/doi/abs/10.1080/00958964.1990.10753743>). (date of application 20.04.2023).
3. Kollmuss, A., & Agyeman, J. (2002). *Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?* *Environmental Education Research*, 8(3), 239-260. [Link] (<https://www.tandfonline.com/doi/abs/10.1080/13504620220145401>) (date of application 20.04.2023).
4. Liefländer, A. K., Fröhlich, G., Bogner, F. X., & Schultz, P. W. (2013). *Promoting connectedness with nature through environmental education*. *Environmental Education Research*, 19(3), 370-384. [Link] (<https://www.tandfonline.com/doi/abs/10.1080/13504622.2012.697545>) (date of application 20.04.2023).
5. Orr, D. W. (1992). *Ecological literacy: Education and the transition to a postmodern world*. Albany, NY: State University of New York Press.
6. Stevenson, R. B., Brody, M., Dillon, J., & Wals, A. E. (Eds.). (2013). *International handbook of research on environmental education*. New York, NY: Routledge. [Link] (<https://www.routledge.com/International-Handbook-of-Research-on-Environmental-Education/Stevenson-Brody-Dillon-Wals/p/book/9780415892384>) (date of application 20.04.2023).
7. UNESCO. (1978). *Intergovernmental Conference on Environmental Education. Final Report, Tbilisi (USSR)*. [Link] (<http://unesdoc.unesco.org/images/0003/000327/032763eo.pdf>) (date of application 20.04.2023).
8. United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. A/RES/70/1. [Link] (<https://sdgs.un.org/2030agenda>) (date of application 20.04.2023).