

IMPROVING THE METHODOLOGY OF DEVELOPING ECO-ETHICAL COMPETENCE IN STUDENTS BASED ON INTEGRATION EDUCATION

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Abstract. In This article explores enhancing responsibility in nature conservation amidst worsening ecological conditions. It emphasizes the complex nature of developing eco-ethical competence, encompassing ecological knowledge, skills, and responsibility formation. The integration of social interactions into educational methods to recognize ecological aspects across societal development stages is highlighted. The article underscores the need for cohesive approaches in educational systems to meet ecological demands effectively, utilizing integrative methods that enhance learning efficiency and foster positive changes. It concludes by stressing the importance of integrating ecological ethics seamlessly into educational frameworks to cultivate responsible ecological behavior among students.

Introduction. Nowadays, environmental ethics has become a direct or indirect object of research in various fields of science, a number of directions have been separated from its structure and are being formed as a particular science. Problems of forming ecological responsibility [1], sociology of ecology and its social laws, issues of forming moral responsibility in nature protection[2], issues of strengthening environmental activism and civic position, systematic and comprehensive study of philosophical aspects of ecological ethics, existing empirical, statistical, sociological information generalization[3], the need to create their universalized, theoretical and methodological bases, nature protection strategy and tactics, retrospective characteristics of the genesis of environmental responsibility, the importance of environmental responsibility in the field of nature protection [4], social demographics of ecological socio-political activism and civic responsibility, ethnographic, geographical features, issues of formation of environmental moral values [5], analysis of the ecological education system, its methodological foundations[6] are researched. However, until now, the problems related to the development of ecoethical competence in students have not been sufficiently and systematically studied.

In response to the escalating ecological crisis, the imperative to enhance eco-ethical competence among students has gained significant traction. This article explores the integration of educational methodologies aimed at fostering a deeper understanding of ecological responsibilities, knowledge, skills, and ethical norms essential for sustainable development.

The current global environmental challenges underscore the critical need for educational frameworks that cultivate eco-ethical competence among students. As societal and technological landscapes evolve, educational systems must adapt to integrate ecological considerations seamlessly into curricula. This integration not only enhances students' academic proficiency but also prepares them to address complex ecological issues in their personal, professional, and social spheres.

Integrative education plays a pivotal role in merging diverse fields of knowledge into a cohesive learning experience. By integrating ecological sciences with social, humanitarian, and technical disciplines, students gain holistic insights into the interconnectedness of ecological issues. This approach promotes a comprehensive understanding of environmental dynamics, fostering informed decision-making and proactive ecological stewardship.

The task of broadening the measures to enhance responsibility in the field of nature conservation amidst the exacerbation of the ecological situation is being prioritized on a large scale. Therefore, encouraging individuals to organize the issues of refining eco-ethical competence, such as ecological knowledge, skills, and responsibility-forming factors, is not a straightforward process.

The importance of social interactions that cultivate educational methods for identifying ecological characteristics at various stages of societal development has been emphasized. Consequently, other social education sectors have consistently adapted their approaches and methods to meet ecological needs and benefits. Undoubtedly, every society possesses distinctive elements in social, legal, religious, and political education content that are crucial. However, the current ecological crisis threatens human qualities, highlighting the societal trends in ecological education, defining new responsibilities for education.

The specific competencies of a student - necessary to actively participate in personal life, professional activities, and social relationships, including being competent, capable, and skilled in life and professional skills and expertise. Each person is expected to be communicative, work with information, develop themselves individually, be socially active, have general characteristics, and be informed about scientific and technical innovations. The integration of education that serves the purpose of creating a global and healthy learning environment is aimed at providing integrated education that contributes to teaching students together.

Utilizing integrative approaches in developing students' eco-ethical competence and benefiting from information and communication technologies for collaborative work represents a pedagogical innovation tailored to the educational field, fostering positive changes and achieving high efficiency in the learning process.

These advancements are crucial in addressing social and technological developments. They form the foundation for enhancing students' eco-ethical competence through innovation.

It is known that integration (Latin: *integratio* — combining, completing, derived from *integer* — whole) refers to: 1) a concept indicating the interdependence and condition of parts and functions of a system or organism, and the process that manifests this condition; 2) the convergence and mutual relationship of sciences and their processes through differentiation; 3) the harmonization and unification of economies between two or more states[7].

Integrative education is a process that identifies a correct conclusion about the indivisible interdependence, coherence, and integrity of numerous small components that shape knowledge. This approach involves deep content integration into the didactic system of organized knowledge, systematic guidance of knowledge, and demonstrating the most appropriate ways to impart knowledge to students. Integrative education benefits from complex and systematic guidance, establishing analytical research methods, and utilizing induction and deduction methods. Integrative education ensures positive outcomes in acquiring research on educational and developmental systems, providing guarantees in this regard.

The educational process evolves through technologically enhanced instructional activities, evaluating and assessing the impact and outcomes of teaching on students under specific conditions and circumstances.

Integrative education encompasses comprehensive analysis and structuring of the issue that encompasses all aspects of adapting knowledge. Integration consolidates the objectives and methods of education into a unified whole.

Integrative function refers to a concept that combines general and vocational education. It involves incorporating all constituent elements of educational content—knowledge, skills, competencies, values, and pedagogical systems—into a cohesive whole. This entails organizing knowledge into systems, shaping the integration and interconnection among various subjects and processes that occur in technical and technological contexts, such as events, concepts, ideas, and theories. It emphasizes the development of connections that support the deepening of scientific and vocational knowledge, highlighting their practical application in solving theoretical and technical issues related to creativity in students. Integrative function aims to accurately shape the purpose, scope, and tasks of economic, social, ecological, organizational, and pedagogical systems based on knowledge and skills acquired through various academic subjects[8].

Integration, derived from the Latin "integer" meaning entirety, and "integrare" meaning to create, fill, or complete, signifies ensuring consistency in educational content challenges within the domain of integration. In education and upbringing, it generalizes the formation of sciences, concepts, skills, and competencies, bringing them into accordance with laws or regulations. Integration is a significant scientific term and serves as a methodological tool in generalization and abstraction, as it facilitates the creation of universal compatibility algorithms among content processes and events.

Conducting research and integrating educational content across various subjects consistently contributes to achieving specified goals and ensuring outcomes are aligned with those objectives.

Integration of teaching content involves understanding it as a unified system of interconnection, influence, mutual support, and outcomes, involving synthesis of knowledge, types of activities, and capabilities (competencies)[9]. Developing students' eco-ethical competence requires teaching subjects, including social sciences with natural sciences, and specific subjects with social-humanitarian sciences. This approach is essential because, firstly, solving complex problems requires multifaceted approaches, which necessitates drawing from various fields of knowledge. Secondly, in higher education systems, imparting knowledge does not limit itself to a single subject but rather is interconnected with other subjects. For instance, in physics courses, students study radioactive materials and their impact on living organisms. In chemistry, they learn about chemical elements, their properties, the release of chemical substances into the atmosphere, and their effects on water, minerals, and other natural phenomena. In biology, they explore the interaction of living organisms with their environment, biosphere, and other ecosystems.

Developing students' ecological ethics and understanding of biosphere dynamics are crucial in integrating educational processes. It is important to emphasize that a sufficient level of knowledge about nature conservation is essential for students aiming to effectively develop ecological traits. For this reason, the spectrum of ecological sciences aligns with society's ecological benefits, adapting to its vital needs and delivering expected results.

For instance, the requirement for environmental conservation is acknowledged but cannot be easily developed in daily life due to ecological sciences not conforming to ethical and moral norms. Ecological and ethical education programs should pay particular attention to the conceptual features of shaping conservation responsibilities. Moreover, ecological ethical education methods include the historical events and topics and the principles which underline shaping the conservation duties, ecological duties.

Currently, there is a pressing need to create a system that effectively delivers ecological ethical knowledge to students without fragmentation. The current array of sciences in educational

institutions is taught in a fragmented manner, focusing partly on natural, technical, social, and humanitarian disciplines. To successfully shape and develop ecological ethical responsibility among students, educational systems need to align all their directions, create a unified theoretical concept, and implement this system step by step without interruption.

The integration of education is crucial in harmonizing environmental and socio-humanitarian disciplines to develop ecological ethical competence among students. This issue relatively involves two independent processes. Firstly, the possibility of systematic teaching in ecological education adjusts various educational areas to achieve unified goals. Secondly, historical and logical consistency in the various forms and levels of ecological education is necessary to ensure their methods and approaches.

In summary, these directions are interconnected and complementary to each other. Furthermore, the integration of education and upbringing with the benefits of environmental conservation creates general coherence, and their specific characteristics affirm the essential requirement for developing ecological ethical responsibility.

The integration of ecological ethics into the general pedagogical-didactic process needs to be viewed as an essential and inseparable part. Firstly, the degrees and directions of ecological education should not be limited by political or ideological barriers, but rather should derive from universal humanistic values. Therefore, imposing ecological pedagogical methods against the backdrop of methods specific to other disciplines does not recognize its heuristic importance.

In summary, the further development and alignment of educational methods for ecological ethics are necessary to achieve the following methodological goals: preservation and development of special concepts, actions, and definitions of ecological education; compatibility of various ecological ethical educational directions with global, regional, national, and local ecological issues and methods of solving them; and alignment and optimization of future ecological activities in educational fields, organizing them in terms of their spatial and organizational dimensions. Thus, it is necessary to establish the conceptual work plans of educational and educational social institutions for these tasks, as well as to determine the ecological tasks to be carried out in the future.

Ecological ethics is characterized by its focus on developing high moral standards in addressing ecological issues. This process, strictly speaking, should integrate horizontally and vertically within educational fields to enhance ecological literacy. Horizontal integration involves the seamless incorporation of ecological ethics into independent fields, contributing to the development of comprehensive ecological ethical theories and universal practical activities. Vertical integration, on the other hand, ensures that educational fields differentiate and deepen in theoretical knowledge, practical experiences, and expertise. Dialectically linking these two approaches is crucial in the methodological significance of advancing ecological ethics through educational processes. Consequently, the effectiveness of ecological ethics education hinges on the compatibility of these approaches.

In educational contexts aimed at developing ecological responsibility through ecological ethics, ensuring a dialectical relationship between "general social order" and "ecological activity order" holds significant importance. Identifying sharp factors, outcomes, societal developmental prospects, and mechanisms that drive ecological situations, clarifying both objective and subjective elements, and institutionalizing legal regulations highlight the viability of ecological ethics education. It is imperative to introduce students to the body of knowledge related to ecological ethics, incorporating new concepts and identifying historical and logical connections,

expanding their opportunities for engagement. Educating students as active agents in nature conservation, meeting current ecological demands, remains challenging in practical terms without merely offering advice or relying solely on strict regulatory measures.

To effectively educate young people to deeply understand their ecological responsibilities and their connection with the environment they inhabit, it is crucial to first acquaint them with their immediate surroundings. People traditionally announce natural resources like mountains, rivers, lakes, land, and other natural attributes as communal possessions, revealing a sense of universality and communal ownership. However, in the minds of students, connecting these natural attributes to specific concepts such as "belonging to the people," "ours," "mine," or "future generations" is often challenging. Discussions on ecological ethics can become a mere theoretical discourse rather than instilling concrete connections to these concepts in students' minds. Therefore, to foster social and ecological responsibilities, it's essential to emphasize that the preservation of nature and the surrounding environment is everyone's social duty.

Establishing an ecological ethical position requires integrating the idea that ecological responsibility is everyone's, both now and for future generations. Utilizing place names also serves its purpose in this regard. For instance, names like *Rishtanarigi* or *Amirabotarigi* can provide future generations, including youth, a means to shape their ecological ethical responsibilities.

The continuous expansion of economic activities at the expense of environmental preservation exacerbates the ongoing conflict between material advancement and ecological conservation. On one hand, technological advancements born from technological progress sometimes neglect ecological ethics, and on the other hand, prioritizing local and administrative benefits over societal benefits leads to ecological technological inventions that are harmful and lacking in responsibility.

Ecological responsibility reflects the natural development of human history towards societal and economic progress. At present, elementary social-ecological norms related to human living conditions, traditions, and formalities are expressed in practical forms. In summary, ecological responsibility involves two interconnected tendencies in this field: firstly, it signifies the activity direction in protecting nature—the civilizing process of ecological responsibility. Secondly, ecological responsibility may be the motivation to shape ecological ethics when it adapts to the daily needs of individual practical activities.

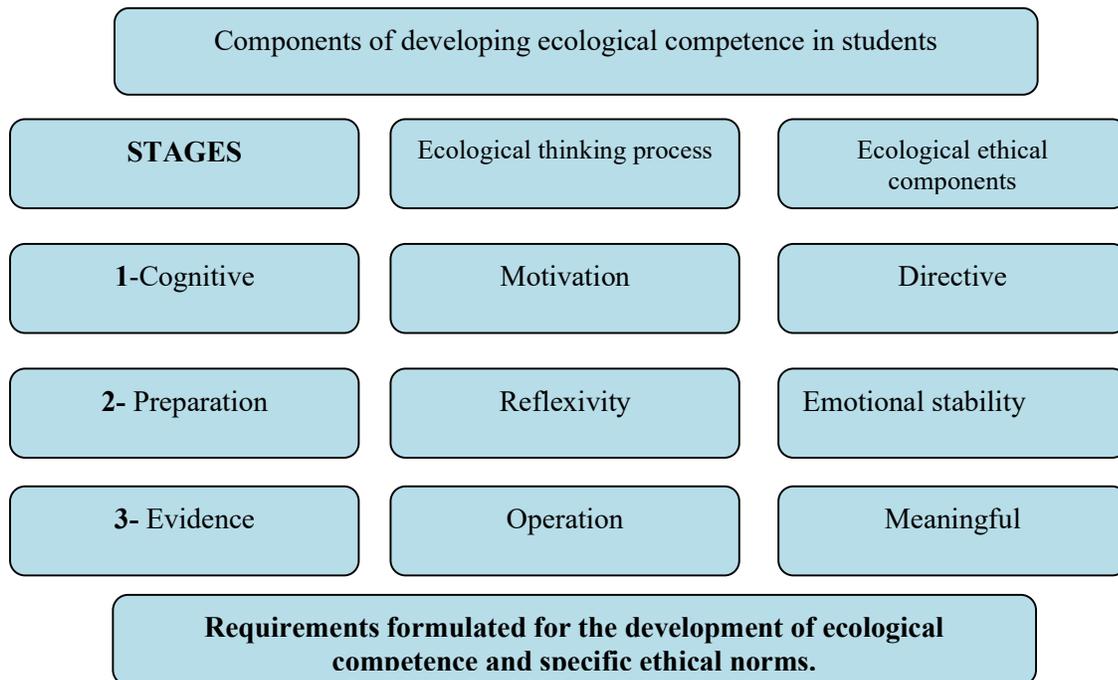
Ecological responsibility, as a part of general social responsibility, is relatively broad and diverse in meaning. In a broad sense, ecological responsibility is a motive in human practical activity during the historical and societal process for conserving the natural environment. In a narrower sense, it consists of the specific practical and theoretical goals of directing human activities towards environmental conservation. The degrees of socio-economic development are determined by the levels of material production, and human strategies for using natural resources in various ways and means are not defined. In this regard, the relationship between a person's natural environment protection and society's social responsibility is illustrated. For example, the current ecological situation has intensified the economic development opportunities of the ways in which the field has shown the level of development.

Without a deep understanding of the laws of nature, the internal complexities of the biosphere, and without identifying the prospects for society's impact on nature, it is impossible to outline necessary practical measures for nature conservation or define acceptable options for benefiting from nature. In this regard, educational programs aimed at shaping ecological

responsibility need to elevate the theoretical-fundamental research into practical requirements to a new level.

The high forms of ecological ethical norms constitute a new ecological ethical zone in relation to nature. Broadly speaking, the implementation of general ecological ethical norms has been elevated to a political level, prompting broader societal implications of ecological ideals. The implementation of general ecological ethical norms manifests in the process of social-ecological ethical ideals. The entire range of ecological education aims and tasks accelerate this process, contributing to the ethical education of youth. In other words, the ethical content and directions of ecological education and promotion must ensure the daily practical activity of ecological ideals and the cultural-historical legacy. "Ecological consciousness," "Ecological welfare," "Ecological responsibility," "Ecological crime," and other ethical and legal ecological categories are the result of this practical activity and represent the definitive rules of spiritual development.

Based on the findings of the research conducted to organize the content of ecological ethics culture, the essential components of ecological competence can be defined as follows. The framework and components for developing ecological competence in students



Let's elaborate on the components of ecological competence mentioned below. The development process of ecological competence in students proceeds through three stages: cognitive, preparatory, and final phases. Based on these stages, the cultivation of knowledge related to healthy ecological thinking and specific moral-behavioral norms in students is identified as an ultimate expected outcome. The cognitive phase incorporates motivational and guiding components, while this phase aims to explain the possibilities and acquire guiding properties of ecological competence. The motivational component of ecological competence is essential in aligning the system of individual evaluation that identifies superior directions of life-changing and

cognitive activities, as well as the optimization of personal resources and the enhancement of emotional conditions in order to achieve identified goals.

The operational component of developing ecological competence embodies the characteristics of motivational and reflexive components. This component, in turn, reflects the ability of students to accurately reflect on ecological situations, events, and incidents, demonstrating positive thoughts and perceptions about oneself and the world. It emphasizes the existence of personal needs in relation to adopting effective work methods related to ecological activities and explaining the validity of objectives.

The guiding component of ecological morality reflects students' personal ecological perspectives, including their intellectual orientations, personal views on themselves and the world, as well as their accumulated knowledge, understanding, and skills.

According to the above-mentioned component of ecological morality, the student will possess insights into self-monitoring and management, planning and implementing activities, and acquiring new experiences. The emotional stability component of ecological morality can be described as follows: awareness of negative emotional reactions, minimizing or eliminating their impact, natural emotions, and emotional control.

The main condition of the healthy ecological thinking process is emotional stability, which ensures objective orientation towards occurring events and incidents and directs positive relationships towards individuals. The content component of ecological morality, as stated above, expresses its unique characteristics in the generalization of all components. It can be explained in relation to the following aspects within the personal content component: the adaptation of knowledge and activity experiences to ecological thinking, the visibility of reflexive activities, and the development of emotional and rational personal actions through self-monitoring. The clarity of internal and external reporting and the formation of one's own perspectives are also well-recognized.

The content component reflects the ultimate results and is related to the personal development of the students, educational activities, and social participation, and the ecological behavior processes. Students' ecological competencies and the presence of such components are the best for social and educational research.

Conclusion. In summary, ecological education not only develops theoretical knowledge to conserve nature but also fosters practical engagements relevant to the issue. The formation of practical ecological activities and the adaptation of lifestyle content involve a straightforward task that is based on the shape of practical ecological activity. One of the most important tasks of ecological education is to focus on the contradictions between nature and society in the daily activities of young people, as well as to focus on their independent development solutions.

References

1. Ursul A.D., Ursul T.A., Ivanov A.V., Malikov A.N. Ecology, safety, sustainable development. - Moscow: University book. 2012. - P.124
2. Efimova O.N. Socio-psychological features of environmental consciousness of workers in production organizations Electronic resource: dis... Ph.D. psychology. Sciences: 19.00.05/0. n. Efimova. - Kostroma, 2010.-P.207.
3. Bganba-Ceres V.R. The formation of environmental ethics. Moscow: SC "Sfera", 1992. - P. 268.

4. Letnikova A. N. Eco-education is the way to save nature and man // *Free Thought - XXI*. – 2006. No. 3. – P. 111-121.
5. Mamashokirov S, Usmanov E. Environmental security issues of sustainable development. -Tashkent.: Science, 2009. –P. 128.
6. Dzyatkovskaya E. N. Culturological approach to general environmental education // *Pedagogy*. - 2009. No. 9. –P. 35-43.
7. Ibragimov H. Ибрагимов Х. The theoretical foundations of professional self-improvement for future teachers in pedagogical colleges and institutes.: abst. dis. . . doct.ped.sc - Moscow.:MPSU 1996. –P. 39.
8. Taylakov U.N. Тайлақов У.Н. Organizing the integrated information phase of the educational institution// *People's Education*. 2011/6. -P.20.
9. Abdukuddusov O. Integrated Learning Subjects: Content and Structure // *People's Education*..1999/№1. -Б.16-17.