

EDUCATIONAL ASPECTS OF FORMING ECOLOGICAL RESPONSIBILITY FOR MILITARY PERSONNEL TRAINING ABROAD

Bartosh O. P.

*Candidate of Pedagogical Sciences, Professor,
Professor at the Department of Sociology and Social Work
State University «Uzhhorod National University»
Universitetska str., 14, Uzhhorod, Ukraine
orcid.org/0000-0001-6733-5516
olena.bartosh@uzhnu.edu.ua*

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Scholars in ecological responsibility education explore innovative strategies to cultivate environmental literacy and inspire individuals and communities to engage in meaningful ecological action. This involves designing impactful curricula, creating effective educational resources, evaluating the success of various initiatives, and collaborating with policymakers and community organizations to instill a sense of ecological responsibility throughout society. Ecological responsibility education is a unique and multifaceted field that should be integrated into various subjects and embraced at all levels of education. Moreover, the relevance of this domain is increasingly pronounced in light of the urgent challenges facing educational systems globally, particularly as we grapple with the frequency of environmental crises. The article introduces to a specialized short-term training in ecological responsibility for members of the British armed forces. It has been proved that ecological responsibility courses are vital for educating about the critical importance of environmental stewardship and sustainable practices. Key topics and concepts covered by the courses include: sustainability principles; environmental issues, ecological literacy; environmental ethics; sustainable practices; environmental policy and law; environmental impact assessment; renewable energy and conservation; social responsibility; circular economy. By examining the ethical and social dimensions of environmental issues, these courses foster a profound sense of responsibility to protect the environment. In the article the flexible learning formats for ecological responsibility courses have been defined as following: dynamic online courses, comprehensive university degree programs, practical workshops and seminars, targeted short-term training for professionals. The UK Defence Academy has been defined as a prime example of short-term specialized training for professionals, offering exceptional education in defence and security, serving the members of the British armed forces, the UK government officials, industry representatives, and international personnel.

ОСВІТНІ АСПЕКТИ ФОРМУВАННЯ ЕКОЛОГІЧНОЇ ВІДПОВІДАЛЬНОСТІ ВІЙСЬКОВОСЛУЖБОВЦІВ ЗА КОРДОНОМ

Бартош О. П.

*кандидат педагогічних наук, професор,
професор кафедри соціології та соціальної роботи
ДВНЗ «Ужгородський національний університет»
вул. Університетська, 14, Ужгород, Україна
orcid.org/0000-0001-6733-5516
olena.bartosh@uzhnu.edu.ua*

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Швейцарія.*

Учені в галузі екологічної освіти досліджують інноваційні стратегії розвитку відповідальності за екологічну безпеку. Їхня діяльність спрямована на розроблення ефективних освітніх програм, створення ефективних освітніх ресурсів, оцінку успіху різних ініціатив та співпрацю з політиками та громадськими організаціями для формування почуття екологічної відповідальності в суспільстві. Освіта з екологічної відповідальності – це унікальна та багатогранна галузь, яка має бути інтегрована в різні галузі та охоплена на всіх рівнях освіти. Ба більше, актуальність цієї сфери дедалі більше визначається у світлі нагальних викликів, з якими стикаються освітні системи в усьому світі, особливо враховуючи частоту екологічних криз. У статті схарактеризовано спеціалізовані короткострокові програми підготовки з формування екологічної відповідальності для військовослужбовців британських збройних сил, урядовців Великої Британії та представників британських промислових підприємств. Доведено, що освітні компоненти з формування екологічної відповідальності є життєво важливими для навчання критичній важливості екологічного менеджменту та сталого розвитку. Визначено, що ключові теми та концепції, охоплені освітніми компонентами, включають: принципи сталого розвитку; екологічні проблеми, екологічну грамотність; екологічну етику; сталий розвиток; екологічну політику та право; оцінку впливу на навколишнє середовище; відновлювану енергетику та збереження природи; соціальну відповідальність; циркулярну економіку. Досліджуючи етичні та соціальні аспекти екологічних проблем, ці освітні компоненти сприяють розвитку глибокого почуття відповідальності за захист навколишнього середовища. Визначено, що окремими формами навчання екологічній відповідальності британських військовослужбовців є: динамічні онлайн-курси, комплексні університетські програми, практичні семінари та майстер-класи, цільове короткострокове навчання. Яскравим прикладом короткострокового спеціалізованого навчання для військових фахівців визначено Британську академію оборони, яка пропонує виняткову освіту в галузі оборони та безпеки для військовослужбовців британських збройних сил, урядовців, представників промисловості та міжнародного персоналу.

Formulation of the problem. Environmental responsibility education is crucial for shaping future professionals who not only enhance productivity but also commit to the preservation and conservation of nature. This form of education can manifest in various ways and is often reflected in proactive, voluntary efforts that significantly improve environmental quality [5]. By fostering a deeper awareness of environ-

mental issues, it plays a vital role in protecting invaluable natural resources and ecosystems. Scholars in ecological education explore innovative strategies to cultivate environmental literacy and inspire individuals and communities to engage in meaningful ecological action. This involves designing impactful curricula, creating effective educational resources, evaluating the success of various initiatives, and

collaborating with policymakers and community organizations to instill a sense of ecological responsibility throughout society. At its essence, academic instruction on ecological responsibility emphasizes rigorous inquiry, critical reflection, and transformative action. These elements empower to build a more just and sustainable world.

Analysis of recent research and publications.

Research indicates that educational programs that include environmental components effectively enhance participants' attitudes towards the environment, resulting in more positive viewpoints [1].

Nonetheless, intriguing questions emerge when exploring the connections between environmental education and various factors such as gender [4; 9], year of study and field of study [7], levels of environmental literacy and awareness [6], and attitude towards environmental education [3; 10].

Gaining insight into these relationships is essential for optimizing educational strategies and cultivating a stronger commitment to environmental stewardship among diverse student populations.

The purpose of the study to introduce a specialized short-term training in ecological responsibility for members of the British armed forces.

Research methods applied: analysis and synthesis of scientific literature (to clarify the key concepts of the study), systematization (to identify existing scientific approaches to solving the problem under consideration), theoretical generalization (to formulate conclusions).

Research results. As an essential aspect of the «new education», environmental responsibility education plays a pivotal role in the modern educational landscape. UNESCO's advocacy for incorporating environmental education as a core component of curricula worldwide by 2025 highlights its critical significance [12].

Ecological responsibility education is a unique and multifaceted field that should be integrated into various subjects and embraced at all levels of education. Moreover, the relevance of this domain is increasingly pronounced in light of the urgent challenges facing educational systems globally, particularly as we grapple with the frequency of environmental crises. The widespread consequences of climate change serve as a clear indication that the planet's future is interconnected and under threat.

To effectively respond to these global shifts, we must recognize the need for change and implement comprehensive educational strategies that promote environmentally responsible behaviors. These strategies should be sustained within institutions committed to nurturing ecological awareness and responsibility, thereby empowering the next generation to act as proactive guardians of our world [8].

Ecological responsibility courses are vital for educating individuals about the critical importance of environmental stewardship and sustainable practices. These courses explore essential topics such as environmental science, sustainable development, and the significant impact of human activities on our planet. By examining the ethical and social dimensions of environmental issues, these courses foster a profound sense of responsibility to protect the environment. Key topics and concepts covered by the courses include [8]:

- Sustainability Principles: developing a comprehensive understanding of sustainability, including ecological limits, effective resource management, and the intricate interconnectedness of environmental, social, and economic systems.

- Environmental Issues: analyzing pressing environmental challenges such as climate change, pollution, biodiversity loss, deforestation, and waste management, emphasizing their urgency and significance.

- Ecological Literacy: cultivating the skills to read and interpret landscapes, assess environmental data, and understand ecological processes, empowering individuals to make informed decisions.

- Environmental Ethics: engaging with the moral and philosophical dimensions of relationship with the natural world, fostering a deeper connection to the environment.

- Sustainable Practices: discovering actionable strategies to reduce environmental impact across various contexts, in particular, personal, workplace, and community, making sustainability a tangible goal.

- Environmental Policy and Law: understanding the legal frameworks that underpin environmental protection and resource management, equipping individuals to advocate for meaningful change.

- Environmental Impact Assessment: Acquiring the essential skills to evaluate the potential environmental consequences of projects and activities, ensuring responsible decision-making.

- Renewable Energy and Conservation: exploring innovative alternative energy sources and approaches for conserving natural resources, paving the way toward a sustainable future.

- Social Responsibility: recognizing the crucial connection between environmental sustainability and social justice, while learning to cultivate equitable and inclusive solutions to environmental challenges.

- Circular Economy: embracing strategies to minimize waste and maximize resource efficiency through thoughtful design and systems aimed at reuse and recycling.

These courses empower individuals to become passionate advocates for the environment, providing the knowledge and tools necessary to create a meaningful impact in their communities and beyond.

Compelling benefits of enrolling in ecological responsibility courses are:

1. Heightened Awareness and Understanding. Participants cultivate a deep understanding of environmental issues and the complex relationships within ecological systems. This enriched awareness equips individuals to navigate the intricacies of our world with confidence.

2. Empowered Decision-Making. The knowledge and skills gained empower individuals to make informed choices that impact both their personal and professional lives positively, fostering sustainability in every aspect.

3. Increased Capacity for Impact. Participants are not only educated but also inspired to drive meaningful environmental change through individual actions and collaborative efforts, amplifying their influence within the community.

4. Enhanced Career Opportunities. As the demand for sustainability professionals continues to grow, these courses position you as a competitive candidate in the job market, opening doors to rewarding career paths focused on environmental responsibility.

Flexible learning formats for ecological responsibility courses are as following:

- Dynamic Online Courses. These courses provide a diverse selection of topics and skill-building opportunities, ranging from foundational sustainability concepts to specialized fields such as environmental impact assessment and corporate social responsibility, allowing for flexible learning at individual pace.

- Comprehensive University Degree Programs. Pursuing a bachelor's or master's degree in environmental science, sustainability, or related fields from a reputable university offers a thorough understanding of ecological responsibility, preparing for impactful careers in this vital area.

- Practical Workshops and Seminars. Engaging short programs deliver hands-on skills and knowledge in essential areas like sustainable research practices and environmentally responsible learning, enabling participants to apply learning at once.

- Targeted Short-Term Training for Professionals. Tailored programs designed for busy professionals ensure the acquisition of specialized expertise in specific aspects of ecological responsibility, enhancing the skill set and effectiveness in driving sustainability initiatives.

By enrolling in these courses, participants enrich the understanding and capabilities, and also make a significant contribution to securing the environment for future generations.

A prime example of an effective short-term specialized training program for professionals is the United Nations Environment Programme Finance Initiative (UNEP FI), located in *Switzerland* [11].

This initiative offers focused courses that explore critical areas such as environmental risk analysis specifically designed for finance professionals. The Environmental & Social Risk Analysis course, which is delivered online, provides comprehensive, personalized training that makes a real impact. Throughout the course, expert tutors engage with participants daily, providing insightful guidance and fostering dynamic discussions. Participants immerse in a variety of hands-on activities, including simulating the implementation of environmental and social policies, analyzing relevant case studies, and conducting exercises based on the environmental and social impacts associated with their clients.

By the conclusion of the course, participants will have acquired essential skills to: confidently recognize and assess environmental and social risks; conduct thorough analyses to identify potential risks; effectively identify, mitigate, and evaluate environmental and social risks; enhance and streamline risk management procedures; institutionalize the practice of environmental risk analysis within their organizations; uncover and leverage market opportunities derived from strong environmental and social risk analysis; achieve a notable competitive advantage through strategic risk reduction and value creation.

The course is organized into five key modules: 1. Introduction to Sustainable Finance. 2. Identification of Environmental and Social Risks. 3. Categorization. 4. Evaluation of Environmental and Social Risks. 5. Administration of Environmental and Social Risks. This rigorous training not only equips participants with valuable knowledge but also empowers them to lead in a rapidly evolving financial landscape focused on sustainability and social responsibility.

A prime example of short-term specialized training for professionals can be found at the *UK Defence Academy*. This institution offers exceptional education in defence and security, serving not only members of the British armed forces but also UK government officials, representatives from UK industry, and international personnel. With a wide range of short and long courses available, the Academy provides engaging learning experiences through face-to-face, digital, and blended learning. The main aim of these programs is to equip individuals and their nations with the vital «intellectual edge» essential for effectively managing government departments and executing military operations. This «intellectual edge» represents the ability to think more strategically and act more decisively than adversaries, both now and in the future. Graduates emerge capable of simplifying complex challenges, recognizing nuances, and navigating uncertainty with assurance [2].

For instance, *Cranfield University* collaborates with the *Defence College for Military Capability Integration* at the *UK Defence Academy* to offer a

series of three impactful short-term courses designed for military and industry professionals. Upon successfully completing these courses, graduates are qualified to meet the Ministry of Defence's (MOD) environmental functional competencies at the practitioner level and receive esteemed membership in the Institute of Environmental Management and Assessment. This training not only enhances individual skills but also significantly boosts the overall effectiveness of defence and security operations, contributing to national and global stability.

1. The course «Environmental Awareness and Compliance in Defence» is designed to equip participants with a thorough understanding of the environmental challenges associated with defence activities and their important implications for procurement processes. It carefully examines how defence operations can influence environmental quality and emphasizes the necessity of incorporating environmental protection into procurement strategies, ensuring adherence to relevant regulations.

Key components of the course include in-depth discussions on pertinent environmental legislation, advanced environmental management systems such as ISO14001, life cycle assessment, and the MOD Project Oriented Environmental Management Systems (POEMS). The curriculum explores vital topics such as emissions affecting air, land, and water, as well as the mandatory compliance requirements pertinent to the defence sector. By grounding participants in fundamental concepts of environmental science and law, this course promotes effective environmental management within defence acquisition.

Upon completing the course, the participants will be able to: articulate the core concepts and principles of environmental protection; evaluate both the positive and negative environmental impacts of mod activities; navigate relevant environmental legislation and compliance measures at global and local levels; clearly outline the eight steps of the poems.

This course aims to significantly elevate awareness of environmental issues within the defence sector and the acquisition process, providing environmental managers and officers with the essential skills and knowledge needed to address complex environmental challenges with expertise and confidence [2].

2. The course «Sustainable Development in Defence Acquisition» is specifically designed to equip professionals with the essential knowledge and skills to integrate sustainable development principles into defence procurement practices. This course is crucial for anyone responsible for sustainable development and environmental management within the defence sector.

The course participants delve into a range of important topics, including: the core concepts of sustainable development; approaches to sustainable

consumption and production; addressing the challenges of climate change and energy; safeguarding our natural resources; enhancing environmental policies for meaningful impact. Drawing on real-world examples from the MOD, this course effectively illustrates the challenges and innovative strategies available for achieving sustainable development. You will gain insights from a brief history of sustainable development, explore case studies that highlight best practices, and access practical tools designed to support sustainable procurement and operations within the MOD.

Upon completion of this course, the participants will be empowered to: clearly articulate the key challenges related to sustainable development in the defence sector; identify and navigate the necessary disciplinary boundaries to promote sustainable initiatives; evaluate and implement strategies that optimize benefits while effectively addressing any adverse impacts associated with defence activities; recognize and tackle potential challenges, risks, and impacts on sustainable practices.

The principles and strategies discussed in this course are not only relevant to the MOD but also extend to non-MOD personnel involved in developing policies or procuring goods and services sustainably [2].

3. The «Project Oriented Environmental Management Systems» (POEMS) course is the opportunity to master the critical requirements, structure, and processes needed for effective environmental management in the MOD acquisition. This course is specifically designed to provide the participants with the practical skills necessary to implement the POEMS framework throughout all stages of the project lifecycle (Concept Assessment, Development, Manufacturing, In-Service, and Disposal) with a focus on the key in-service and concept phases.

Graduates develop a thorough understanding of the nine core POEMS procedures, enabling to: compile detailed stakeholder and standards registers; perform comprehensive project screening and scoping; prioritize environmental impacts with clarity; establish specific objectives and targets; implement operational controls effectively; conduct a continuous review process to ensure compliance and continuous improvement.

By participating in this course, the graduates:

- Acquire in-depth knowledge of POEMS requirements, procedures, and the implementation process.
- Apply POEMS effectively to both commercial and military off-the-shelf user requirement documents.
- Enhance your influencing and communication skills while managing restricted materials and leveraging available assessment tools and auditing techniques.

- Recognize when further environmental assessments are warranted within the context of POEMS.
- Develop the ability to implement environmental business processes, allowing you to make informed and pragmatic decisions that enhance environmental management in acquisition.
- Understand how POEMS integrates seamlessly with the MOD objectives and aligns with national and international initiatives for sustainable environmental management.

Thus, members of the British armed forces, UK government officials, representatives from UK industry are offered the opportunity to elevate expertise and make a meaningful impact in the field of environmental management and sustainable development [2].

Conclusions. Scholars in ecological education explore innovative strategies to cultivate environmental literacy and inspire individuals and communities to engage in meaningful ecological action. This involves designing impactful curricula, creating effective educational resources, evaluating the success of various initiatives, and collaborating with

policymakers and community organizations to instill a sense of ecological responsibility throughout society. Ecological responsibility courses are vital for educating individuals about the critical importance of environmental stewardship and sustainable practices. By examining the ethical and social dimensions of environmental issues, these courses foster a profound sense of responsibility to protect the environment. Flexible learning formats for ecological responsibility courses are as following: dynamic online courses, comprehensive university degree programs, practical workshops and seminars, targeted short-term training for professionals. A prime example of short-term specialized training for professionals can be found at the UK Defence Academy. This distinguished institution offers exceptional education in defence and security, serving not only members of the British armed forces but also UK government officials, representatives from UK industry, and international personnel. With a wide range of short and long courses available, the Academy provides engaging learning experiences through face-to-face, digital, and blended learning.

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