

ENVIRONMENTAL COMMUNICATION AS A PEDAGOGICAL CONSTRUCT: A THEORETICAL EXPLORATION WITHIN THE CONTEXT OF ENVIRONMENTAL EDUCATION IN THE WESTERN BALKANS

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ABSTRACT:

This paper explores environmental communication as a pedagogical construct within the evolving framework of environmental education in the Western Balkans. Positioned at the intersection of communication, pedagogy, and ecological awareness, the study argues that environmental communication transcends the mere transmission of information, and it operates as a transformative process that fosters critical reflection, participatory dialogue, and ecological citizenship. Drawing upon critical pedagogy, ecopedagogy, social constructivism, and agenda-setting theory, the paper offers a communication-cantered model of environmental education. This theoretical model emphasizes communication as both a method and a medium of learning that is enabling learners to co-create meaning, critically analyse environmental narratives, and engage in civic participation. Within the specific socio-political context of the Western Balkans, characterized by post-socialist transitions, weak environmental governance, and limited educational innovation, the study highlights the potential of communication-based pedagogy to strengthen environmental literacy, promote sustainability, and support democratic engagement. By viewing communication as the connective tissue linking environmental awareness, education, and literacy, the paper contributes a framework for rethinking environmental education as a socially transformative process responsive to regional ecological and cultural realities.

Key words: *environmental education. environmental communication, ecopedagogy, critical pedagogy, environmental awareness*

Introduction

The intersection of communication, education, and environmental awareness has become an increasingly important (Simanjuntak, 2023). As global ecological crises intensify the education systems are being called upon to respond not merely by transferring knowledge, but by fostering

transformative ecological consciousness (Rensburg & Janse, 1994). Within this context, environmental communication has emerged as a vital tool for shaping how individuals, communities, and societies perceive and act upon environmental issues. This research explores environmental communication as a pedagogical construct focusing on its application and potential within the Western Balkans.

The Western Balkans occupies a unique ecological and socio-political landscape. Decades of political transitions, post-socialist transformations, economic instability, and fragmented governance have influenced environmental management and awareness in complex ways. Despite significant natural resources and biodiversity, the region faces persistent environmental challenges. Environmental education in the Western Balkans, while increasingly recognized as essential, often struggles with limited institutional support, outdated pedagogical approaches, and insufficient integration of communication strategies that could engage learners more dynamically.

Environmental communication: from transmission to transformation

Environmental communication is traditionally and stereotypically defined as the study and practice of how individuals, groups and institutions transfer information about the environment and in the later years intensively focused on the sustainable development (Jurin et al., 2010; Hansen, 2011). Early approaches often focused only on the transmission of information, meaning how scientific facts and policies could be effectively communicated to the public (Burgess et al., 1998). This is done by using the environmental communication as a linking string in the theoretically established science communication triangle of: scientific community, the public and the media (O’Keeffe & Bain, 2018). However, more recent perspectives emphasize the transformative potential of communication. Cox and Depoe (2015) describe environmental communication as a symbolic process through which environmental meanings are socially constructed and contested. This view highlights that environmental discourse is not just neutral but can also be shaped by cultural narratives, power relations, and political agendas.

In pedagogical contexts, this shift from transmission to transformation aligns closely with critical pedagogy and social constructivism. Communication is not only a method for transferring knowledge but a manner for learners to negotiate meaning, engage in dialogue, and co-create understanding about the environment. Thus, environmental communication as pedagogy implies fostering critical reflection, dialogue, and participatory engagement (Comfort & Park, 2018). All these processes are much needed in the Western Balkan contexts as they are considered as socially endangered.

Critical Pedagogy and ecopedagogy

Critical pedagogy is emphasizing education as a process of emancipation, dialogue, and transformation (Chalaune, 2021). It challenges traditional hierarchical models of teaching that can reproduce social inequalities and instead promotes dialogical learning, where learners and educators co-create knowledge through reflection (McLaren, 2023). When put into environmental education context, this perspective becomes ecopedagogy, a study and movement that links ecological awareness with social justice and political activism (Kellner & Kneller, 2010). Ecopedagogy is not an education about ecology but an education through ecology, meaning that it is an education based on an ecological worldview (Hung, 2021). This study critiques the technocratic and depoliticized nature of mainstream environmental education, arguing for a pedagogy that cultivates ecological citizenship, critical consciousness, and collective action. Much of these values can be seen as deficits in the fragile democratic ecosystem of the Western Balkans.

Within the Western Balkans, where post-socialist societies grapple with environmental degradation, economic inequality, and weak civil institutions, ecopedagogy provides a valuable

theoretical, but also practical lenses. It positions environmental education as a means of empowerment, by enabling communities to question dominant narratives of development, challenge environmentally harmful practices, and envision alternative futures rooted in sustainability and equity.

Social constructivism and the role of dialogue

Social constructivism positions are that knowledge is co-constructed through social interaction and cultural context (Adams, 2007). In environmental education, this means that understanding of ecological issues emerges through dialogue among learners, educators, and the broader community to the decision makers (Robottom, 2004). Communication then can become the medium through which environmental meanings are negotiated and discussed. This is particularly relevant in culturally diverse contexts like the Western Balkans, where environmental values are intertwined with identity, tradition, and collective memory (Brenner Music, 2025). Constructivist pedagogy emphasizes that learners bring prior experiences, beliefs, and cultural frames to the educational process (Richardson, 2003). Thus, communication strategies that are dialogic and participatory can facilitate deeper engagement and localized understandings of environmental issues. This can be used as a mediator between the cultures, communities and the issues. For instance, community storytelling, place-based narratives, and participatory media projects can all serve as communicative practices that foster environmental literacy.

Agenda-setting theory and environmental narratives

Agenda-setting theory is the concept that the media can influence the importance of topics by choosing which stories to cover and how prominently to feature them (McCombs et al., 2018). The more media coverage an issue receives, the more important the public perceives that issue to be (Duru, 2018). Environmental issues in the Western Balkans often receive limited or episodic media attention and have their own seasonality, typically during crises such as floods and forest fires in the warmer months and air pollution incidents during the winter. With this the public perception and policy responses tend to be reactive rather than initiative-taking. From a pedagogical perspective, understanding how media construct environmental agendas is essential for developing critical media literacy among learners. Integrating agenda-setting insights into environmental education encourages students to analyze how environmental narratives are framed, who constructs them, and whose voices are marginalized (Sumida, 2017). There are no clear examples of using agenda-setting construct in the context of environmental conservation in the Western Balkan region, outside of the episodic environmental campaign set on a specific communicational goal.

Environmental education, environmental literacy, and environmental awareness: interconnected dimensions of learning

A crucial component in understanding environmental communication as a pedagogical construct lies in clarifying the conceptual links between environmental education, environmental literacy, and environmental awareness. These dimensions, though often used interchangeably, represent distinct yet interrelated stages of cognitive, affective, and behavioural engagement with the environment. These three individual processes can be seen as a continuum of development. This can be defined as the transformative continuum of environmental learning: linking awareness, education, literacy, and communication. Environmental education serves as the formal and informal educational process through which individuals gain knowledge, values, and skills necessary to address environmental challenges (Hart & Nolan, 1999). It encompasses structured curricular efforts as well as community-

based initiatives that promote sustainability and stewardship (Srbinovski & Stanišić, 2020). In the Western Balkans, environmental education is still evolving, often constrained by limited institutional capacity but enriched by non-formal learning through NGOs and local activism. Environmental literacy, on the other hand, refers to the degree to which individuals understand ecological systems, recognize the interdependence between humans and nature, and apply this knowledge in decision-making and daily practices (Fang et al., 2022). The literacy is the outcome of effective environmental education, a state in which learners can interpret environmental information critically, evaluate media and policy messages, and engage in sustainable action (Moseley, 2000). Only by this development level, an environmental literacy has been achieved.

Environmental awareness represents the attitudinal and perceptual foundation of both education and literacy (Perron et al., 2006). It involves recognizing the significance of environmental issues, developing concern for ecological well-being, and internalizing values of sustainability (Ham et al., 2016). Awareness is often the first step toward deeper engagement; it can be fostered through exposure to environmental communication in media, community dialogue, and educational experiences that evoke emotional and ethical responses. The connection between these three constructs can be viewed as a developmental continuum. Environmental communication plays a mediating role across this continuum, where by the environmental communication can be seen as an enabler and supporter (Fig.1). Through dialogic and culturally relevant communication strategies, awareness is transformed into knowledge, and knowledge into action.

Therefore, it is essential to view the environmental communication as the connective tissue linking awareness, education, and literacy. This can have a significant impact on how the environmental issues are communicated, negotiated and dealt in the Western Balkan, where the connectivity between these three similar constructs is sociologically invisible.

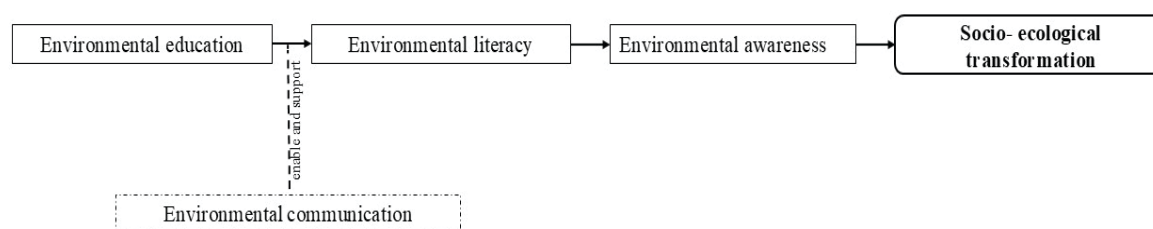


Figure 1. *The transformative continuum of environmental learning*

Contextualizing environmental challenges in the Western Balkans

The Western Balkans region is known for its diverse natural environment, including significant, rare and unique ecosystems, and biodiversity hotspots (Miho et al., 2023; Vulovic, 2023). However, environmental degradation is widespread. Industrial pollution, poorly managed waste, deforestation, and water contamination remain serious issues (Knez et al., 2022). The legacy of socialist-era industrialization, coupled with weak environmental governance during the post-socialistic transitions, has resulted in fragmented or aged environmental policies and policy building capacities (Börzel & Fagan, 2015). Furthermore, limited economic resources and competing priorities and continuum of internal or international political crisis often overshadow ecological concerns or puts them very low on the national agendas (Maria, 2019).

Climate change poses additional risks, including rising temperatures, changing precipitation patterns, and increased frequency of natural disasters (Vulević et al., 2021). Yet, public awareness and civic engagement in environmental protection remain inconsistent across the region or at least understudied.

Environmental education: institutional frameworks and limitations

Environmental education has been introduced into national curricula in most Western Balkan countries, often under subjects like biology, geography, or civic education. However, it remains largely knowledge-based rather than action-oriented. Although significantly understudy the data suggests that environmental topics are frequently taught with limited emphasis on critical thinking, dialogue, or participatory activities (Turnock, 2004; Hyseni Spahiu et al., 2014). Teacher training in environmental education is also uneven, and cross-curricular integration is limited.

One of the reasons can be the lack of pedagogical innovation. Traditional teacher-centered approaches persist, leaving little space for student voice or community engagement. Moreover, environmental communication is rarely considered a deliberate pedagogical component. Without communication-focused pedagogy, environmental education risks becoming abstract and disconnected from learners' experiences.

Media, civil society, and environmental discourse

Mass media and digital platforms play a crucial role in shaping the environmental discourse (Parlour, 1980). However, coverage often remains superficial, episodic, or politicized (Jankulovska, 2023;Bolevich, 2020). Investigative journalism and independent media outlets have exposed environmental scandals, but sustained media attention is rare due the amount of socio-economic issues that are competing with the environmental topics in the news daily.

From an educational standpoint, the current media landscape presents both challenges and opportunities. On one hand, the lack of consistent environmental reporting limits public learning, and on the other, the rise of digital activism and citizen media provides new spaces for participatory communication, especially among the youth, that share different communication sphere in comparison with the older generations. Integrating these real world communication practices into environmental education, through media analysis, citizen journalism projects, or community storytelling can cultivate critical ecological literacy and civic engagement among students.

Communication as a core pedagogical process

This section proposes a theoretical model in which environmental communication functions as a pedagogical construct. A structured, intentional process within environmental education that fosters learning through dialogue, participation, and reflection. In this model, communication is not just content delivery but is itself a central component of learning. The sole goal is for the communication to becomes the space where learners articulate experiences, question assumptions, and create opinions about the state of the environment.

Such a model recognizes that environmental problems are not just scientific, but also cultural, political, and ethical (Figure 2.)

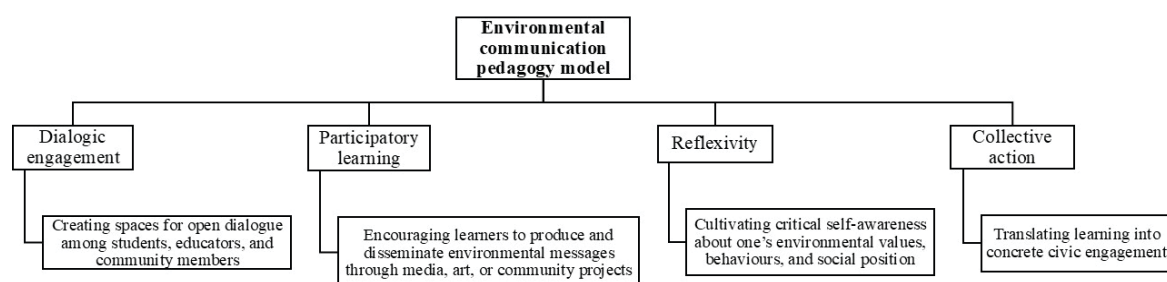


Figure 2. *Environmental communication pedagogy model*

Symbolic representations of nature

Symbolic representations (language, imagery, and metaphors) play a powerful role in shaping how people perceive nature by themselves. In the Western Balkans, where national identities are deeply intertwined with landscapes and animals (rivers, mountains, eagles, lions...), environmental communication can harness these cultural symbols to foster ecological attachment and stewardship (Arsovski, 2024). For instance, educational projects inspired by local folklore, traditional knowledge on nature, or cultural heritage can resonate more deeply with learners. For example, with the Macedonian folklore story of Slijan the Stork (orig. Siljan Shtrkot) the subject of bird migration, habitat fragmentation and biodiversity can be discussed beyond the original message of the story. Pedagogically, analyzing and producing environmental symbols encourages students to critically examine how nature is represented in media, politics, and everyday discourse.

Participatory and culturally responsive strategie

A culturally responsive environmental communication pedagogy in the Western Balkans must account for the local linguistic diversity, historical context, and socio-political sensitivities. Participatory communication strategies such as community mapping, participatory video, or citizen science are allowing the learners to co-produce environmental knowledge grounded in local realities and with a local context.

In multicultural communities, dialogic projects that bring together students from different ethnic or religious backgrounds to discuss shared environmental concerns can also serve as tools of reconciliation and solidarity. Communication thus becomes both pedagogical and social: it builds ecological understanding while fostering social cohesion.

Integrating media literacy and critical discours

Media literacy is a key dimension of this pedagogical model. In a region where media landscapes are often polarized, teaching students to critically analyze environmental news, advertisements, and political rhetoric is essential. Through critical discourse analysis, learners can explore how environmental issues are framed, whose interests are served, and what alternative narratives could

emerge. Educators can incorporate projects where students produce their own media content such as documentaries, podcasts, blogs and thereby transforming them from consumers of environmental information into active communicators.

Civic engagement and ecological citizenship

The goal of environmental communication pedagogy is to cultivate ecological citizenship. This can be defined as a sense of responsibility and participation in environmental governance. This is the personal involvement of the citizens into mitigating or adapting into the environmental issues. The communication can facilitate this by connecting personal experiences to collective action. When students engage in community dialogue, advocate for better local environmental policies, or collaborate with NGOs, they embody the principles of critical and ecopedagogical learning. In the Western Balkans, where civic participation remains uneven and often constrained by chronic political distrust, such communicative practices can strengthen democratic engagement. By positioning communication as both an educational and civic process, environmental education can contribute to broader socio-ecological transformation.

Conclusion

By integrating principles of critical pedagogy, ecopedagogy, social constructivism, and agenda-setting theory, the proposed framework identifies communication as a core pedagogical process that facilitates dialogue, reflection, and civic participation. These theoretical elaborations suggest that incorporating communicative and participatory strategies can strengthen environmental literacy, promote ecological citizenship, and enhance the responsiveness of education systems to regional socio-environmental contexts. In the Western Balkans, where ecological challenges are intricately linked to political and cultural transitions, a communication-centered environmental pedagogy offers a viable model for advancing socio-ecological transformation and sustainable development.

Future research should empirically examine how communication-based pedagogical models influence environmental learning outcomes across different educational levels and sociocultural contexts in the Western Balkans. Comparative studies across post-socialist regions could provide further insights into the adaptability of the proposed framework. Moreover, interdisciplinary research integrating media studies, environmental psychology, and educational sciences is needed to operationalize and evaluate the communicative processes that drive environmental awareness and literacy.

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