

Piloting Innovative forms of Nature-Based Learning in Business Schools

Shifting mindsets for regenerative futures and business models to emerge

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Abstract

This research explores the potential for nature-based learning in fostering regenerative capabilities in business education. The goal of the research is exploring how nature-based learning approaches in education can be integrated to cultivate regenerative-focused mindsets in individuals and organizations, supporting the transition towards regenerative business models. Through a multi-national study, this explorative research will develop, test, and refine innovative nature-based learning approaches which will contribute to practical and theoretical insights that support regenerative capabilities within business schools.

Keywords

Regenerative Business Models, Nature-Based Education, Higher Education, Co-Emergence, Transformative Learning

1. Introduction

Current lifestyles and business practices reflect an immense and growing detachment between humanity and nature. This is evidenced in excessive consumption and over exploitation of natural resources, precipitating ecological crises and global challenges such as climate change and biodiversity loss, resulting in far-reaching effects on human societies (Dasgupta, 2021; IUCN, 2023a; Reed, 2007). Addressing this disconnect, requires a radical paradigm shift towards regenerative sustainability, a transition beyond incremental reduction of unsustainability to active ecological restoration and rejuvenation, enabling all forms of life to flourish (Ehrenfeld, 2009; Mang & Haggard, 2016; Muñoz & Branzei, 2021; Reed, 2007; Wahl, 2016).

From this vantage point, innovating for regenerative futures and business models presents a societal and business (un)learning challenge. One that calls for a profound reconnection with nature (IUCN, 2023a; UNESCO, 2022) and continual, thoughtful and caring engagement of all key stakeholders, with the whole web of life in mind (Capra & Luisi, 2014; IPBES & IPCC, 2021; IUCN, 2023a; Leal Filho et al., 2019; Reed, 2007). Re-establishing a harmonious, interconnected relationship with nature, others, and ourselves as nature, can help (re)build our capacity to think and act systemically (Ison, 2017) and contribute to ecological regeneration (Reed, 2007; UNESCO, 2022).

Higher education institutions play a pivotal role in the transition towards regenerative sustainability (Kirchherr et al., 2023; Wals, 2019; Wittmayer, 2021), by enhancing students' understanding of living systems, fostering critical and systems thinking, and providing spaces where creative experimentation and collaboration can occur (Caldana et al., 2023; van den Berg, 2023; Wyss & von Kutzschenbach, 2020). This view is reflected in growing calls for transformative, innovative, and transdisciplinary learning approaches (IUCN, 2023b). Drawing upon principles of nature-based education - NbE (IUCN, 2023b) and regenerative higher education - RHE (van den Berg et al., 2022), such initiatives can facilitate a (re)connection with nature and local sustainability transitions, bringing together students, researchers and a diverse set of stakeholders to enhance their capabilities for contributing to regenerative futures. However, further investigation is required to understand the integration of these approaches across various contexts and practices (IUCN, 2023b; van den Berg, 2023).

Creating conditions for students to build regenerative capabilities, may in turn support regenerative business and business models, an emerging field centered on planetary health

and societal wellbeing aiming for a net positive impact across all stakeholder levels (Konietzko et al., 2023). Currently, the integration of NbE and RHE in business education remains underexplored. Existing business education has been slow to incorporate transdisciplinary perspectives, learning for, in and with nature, and active collaboration with external actors, impacting current and future business practices (Dyllick, 2015; Hoffman, 2018, 2020).

This research proposes to explore how NbE and RHE can create the conditions for business education to inspire a regenerative mindset in individuals and organizations, and support the transition towards regenerative futures and business models. The guiding research question is: *How might regenerative forms of nature-based learning be incorporated into learning approaches in business schools?* Utilizing an Educational Design Research approach (McKenney & Reeves, 2012), and drawing from the “Co-Emerge Lab for Regenerative Futures” project, spanning four countries (Switzerland, Sweden, Finland and Canada), we will investigate formats, content, and processes, in existing literature and initiatives. Based upon this review, pilot projects will be developed to experiment and evaluate further insights. The findings are expected to enrich current literature and practice in education for sustainability and business model innovation for sustainability.

The remainder of this paper is structured as follows. Section 2 describes the key theoretical concepts relevant to this project. Section 3 introduces the project and the research design. Section 4 concludes this paper with the expected results.

2. Key Concepts

In response to climate crisis and sustainability challenges, there is an urgent need to empower learners with the capabilities to take informed decisions and responsible collaborative actions for ecological integrity (Jickling, et al., 2018). Nature-based education and regenerative higher education have emerged as promising approaches in this context. This section aims to provide brief insights into what NbE and RHE entails, their potential to support regenerative business model innovation, and their apparent lack in business education.

Nature-Based Education (NbE) represents a net of blended educational strategies that encompass experiential environmental education, indigenous knowledge, education for sustainable development, as well as mindfulness and socio-emotional learning (IUCN, 2023b). NbE proposes, that by placing nature at the centre of education, participants learn through active exploration and discovery, activate creative capacities and develop a learner’s sense of being part of, and not separate from, nature (IUCN, 2023b). This notion is supported by studies (e.g., Ameli, 2022), where authors have looked into “Forest School” practices (e.g., Boileau & Dabaja, 2020; Cudworth & Lumber, 2021; Smith et al., 2018), and others have emphasized the potential of “the great outdoors” as ideal classrooms for

comprehending the interrelationships and dynamics of species (e.g., Booth-Sweeney, 2012; Carvahlo et al., 2020). Despite the recognized potential of NbE, current literature predominantly focuses on the use and impact of NbE within K-12 education, STEM fields, and the natural sciences (Ben-Zvi-Assaraf & Orion, 2005, 2010; Logan, 2018). Some studies report on outdoor learning experiences to support the development of sustainability leadership (e.g., Luthe & von Kutzschenbach, 2020) and emotional competences of management students (e.g., Gomez et al., 2019). To our knowledge, at this time, there appears to be a research gap in NbEs' overall application and effectiveness within the context of higher business education.

Regenerative Higher education (RHE) presents an ecological and relational approach to education, connecting with place-based sustainability transitions toward more sustainable futures, while helping students navigate the complexities of contributing to such futures (van den Berg et al., 2022). RHE is driven by the belief that higher education has a moral responsibility to foster human-environment healing relationships (Barnett, 2017; Barnett & Jackson, 2019; van den Berg et al., 2021). Indicating its potential synergies to NbE, this emerging approach has often been practiced in lab-based and participatory approaches, that connect students with sustainability challenges and stakeholders beyond the university (e.g., Overdiek & Geerts, 2021; van den Heuvel et al., 2021; Holmberg & Larsson, 2017, 2018). Recent works have already started to pave pathways of understanding for the ways RHE can and also has been enacted across parts of Europe, illuminating design practices and possible barriers (van den Berg, 2022). However, more research is needed to explore how these approaches can be applied in diverse contexts and practices, such as business schools, and how supportive innovation systems can be created to support impact long-term (van den Berg, 2022, 2023).

Creating the conditions for students to build their regenerative capabilities, may in turn support **regenerative business and business models**, an emerging field centered on planetary health and societal wellbeing aiming for a net positive impact across all stakeholder levels (Konietzko et al., 2023). The concept of regenerative business models distinguishes itself from sustainable and circular models in its core philosophy and objectives. These are based on viewing the Earth as a living, self-regulating organism, describing integrated and interdependent systems of human societies and natural ecosystems (Lovelock, 1988; Folke et al., 2010). Unlike sustainable business models, which aim for a balance of economic, social, and environmental values (Bocken et al., 2014; Geissdoerfer et al., 2018), and circular models that aim for an increase in material productivity (Geissdoerfer et al., 2018; Linder & Williander, 2017), regenerative business models seek to rejuvenate and restore ecosystems and societies focusing on health and wellbeing. They incorporate a deep focus on healing human-nature relationships, recognizing individual purpose, leadership, spirituality, rights of nature and animals, and indigenous knowledge contributions towards societal and nature regeneration (Hahn & Tampe, 2021; Muñoz & Branzei, 2021; Wahl, 2016).

There appears to be many synergies in the underlying objectives of NbE, RHE and regenerative business models. The integration of these approaches into business education, however, remains underexplored. As a result, this research aims to explore how NbE and RHE within business education can inspire the value of a regenerative mindset in individuals and organizations, to support the transition towards regenerative futures and business models.

3. Exploring and Designing Regenerative, Nature-Based Learning Approaches for Business Schools

To address the research question of how regenerative forms of nature-based learning can be incorporated into learning approaches in business schools, this research project aims to develop a multi-national “Co-Emerge Lab for Regenerative Futures” that span across four countries (Switzerland, Sweden, Finland and Canada). The focus will be on connecting students, researchers and wider stakeholders to local sustainability challenges and enhance their capabilities for contributing to regenerative futures. Each country provides a unique context and setting to experiment with lab-based, participatory approaches to gain a deeper understanding of what an appropriate educational initiative should look like to awaken the regenerative spirit in individuals and organizations, incorporating NbE and RHE.

The research project is both exploratory and action-oriented. It follows an educational design research approach defined by Wang and Hannafin (2005, p.6) as “a systemic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories”. In line with our goals, the approach is seen as suitable for advancing both theory and practice (McKenney & Reeves, 2012). The research project is structured over five phases, as illustrated in Figure 1, building on McKenney & Reeves’s (2012) core phases of educational design research. This includes 1) analysis and exploration, 2) design and construction, and 3) evaluation and reflection, to move towards implementation and the provision of both practical and theoretical insights.

Phase 1 of the project consists of desk research. Firstly, to review the extant literature on the topic to better define and delimit the key aspects relevant for the project. Secondly, to gain practical examples of existing initiatives that incorporate NbE and RHE within and beyond business education. The aim is to gain an overview of existing formats, approaches, methodologies, and tools in practice. The project is currently initiating Phase 1.

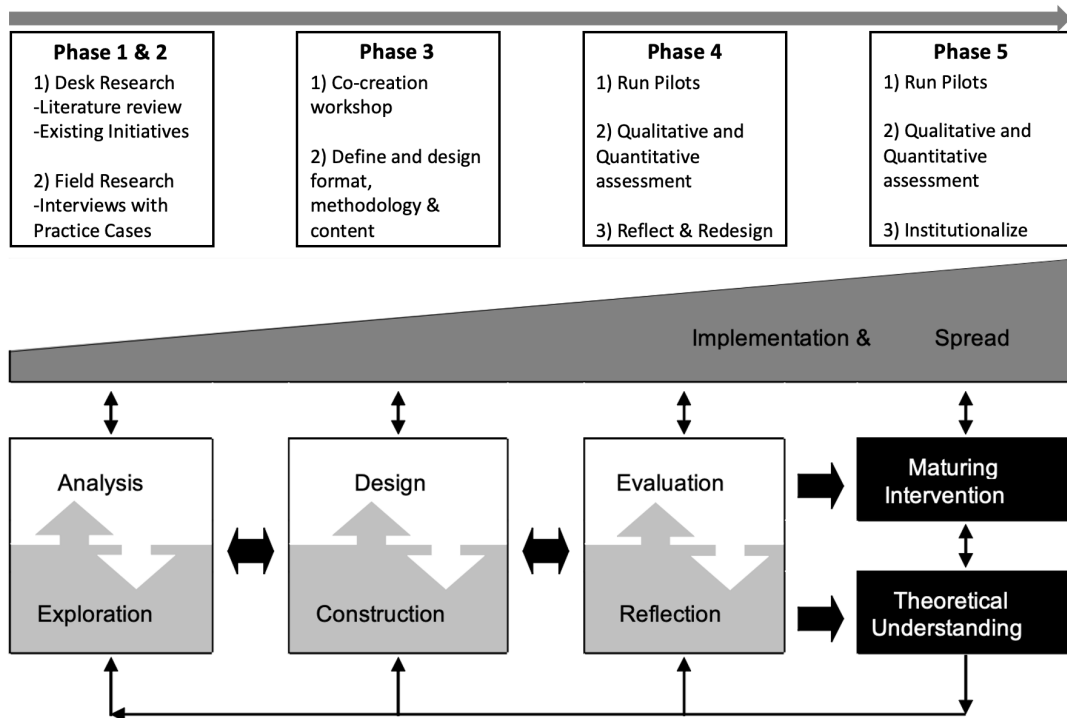


FIGURE 1: RESEARCH APPROACH. ADAPTED FROM MCKENNEY AND REEVES (2012).

Phase 2 of the project involves field research. From the initiatives identified in phase 1, interview research is conducted with “good practice” cases, which can be understood as cases that are selected based on their integration of NbE and RHE, and the level of innovativeness of their offering. The level of innovativeness can be understood as initiatives that move beyond education in the classic sense towards transformative, inter- and transdisciplinary approaches, formats, methods, and tools. Within each case, the person responsible for the initiative is interviewed. Furthermore, the aim is to engage additional interview partners to gather different perspectives (participating stakeholders and students). In-depth semi-structured interviews will be conducted, transcribed, coded, and analyzed using Atlas.ti software. This phase aims to provide deeper insights into the approaches, methods, and tools used and the success factor and outcomes of the initiatives.

Phase 3 involves the co-creation and development of a set of approaches, activities and tools for educational pilot projects for regenerative forms of NbE in business education. This phase strongly builds on co-creation with various stakeholders including project partners, students, and lecturers from different faculties of participating educational institutions and a selection of business practitioners. The phase aims to define the overall approach and a variety of formats methodologies and content that can be experimented with.

Phase 4 involves the launch of pilot projects, which will include different HEIs and organizations in Switzerland, Sweden, Finland and Canada. This phase aims to experiment

with and test the developed concept. The phase includes qualitative and quantitative data collection in the forms of interviews, observations, and surveys to aid in assessing and redesigning the offering.

Phase 5 will utilize the insights gained from the previous phases to evaluate and improve the concept. Furthermore, to assist in launching further pilots in varying forms for further development. The project aims to be institutionalized into formal structures as an ongoing experimentation platform.

4. Expected Results

The anticipated outcomes of this research include new practical and theoretical contributions to incorporating regenerative forms of nature-based learning approaches in business schools. Aiming to support the transition towards regenerative futures and business models. Thereby this study contributes to the literature streams on education for sustainability and business model innovation for sustainability.

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