



Eco-Thinking: Highlighting Diversity in Research

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ABSTRACT

With the launch of the Eco-thinking journal, the goal is to describe research with/in environmental learning as a diverse and growing field of inquiry, respondent to a variety of international program developments and contexts. This research might be labeled under various genres: environmental education, global education, indigenous education, health education, eco-justice education, education for sustainable development, or environmental learning. However, what truly matters is that there are a broad range of perspectives and paradigms described that will critically inform our work as educators and as researchers. With this editor's note and the launch of the Eco-thinking journal. It is hoped that this begins to describe a range of possibilities that exist around the varied and expanding contexts for research in environmental learning.



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EDITOR'S INTRODUCTION

With the launching of the *Eco-Thinking* journal, the Institute for Environmental Learning and the broader sponsoring Global RCE Network aims to describe and support research with/in ecological and environmental learning as diverse and growing in its field of inquiry and respondent to a variety of international program developments and contexts. Research around 'eco-thinking' could be labeled under various genres: environmental education, global education, indigenous education, health education, eco-justice education, education for sustainable development, environmental learning, etc., however, what truly matters is that there are a broad range of perspectives and paradigms described that critically inform our work as educators and as researchers. This journal aims to describe a range of possibilities that exist around various contexts for research in 'eco-thinking' broadly defined.

In aiming to draw a collection of original research, the journal: *Eco-thinking* will document and richly describe aspects of diversity in ESD and environmental learning research from all corners of the globe. It does so in two ways: first, it aims to mirror a diversity of voices and cultures that are conducting research in an ever-broadening and global field of inquiry; second: it will illuminate further potential for diversity in research by highlighting a range of methodologies that are salient in other fields and may have promise for the practice of research in ESD or environmental learning. Finally, it will make these findings accessible to both researchers and practitioners by publishing as an 'open access journal', and by providing research 'summaries' so that a broader range of readers can access the ideas we publish.

WHY DO WE NEED DIVERSITY IN RESEARCH?

Diversity in environmental learning is compounded when one considers the various cultures, epistemologies and research traditions that often inform the field of environmental learning. This complexity also accounts for a range of forms for environmental learning whether it occurs in formal, informal or non-formal contexts. Still, published research accounts do not always mirror the complexity inherent in the broader field. For any research, it is important to consider two important and linked aspects of diversity: 1) diversity of voice and 2) diversity of method.

Cultural diversity is often talked about in educational circles, and it is assumed that great benefits are to be gained by educators through careful attention to the range of perspectives that the world has to offer us. According to many culturally informed researchers -- the dominant idea is that if there are variations according to race and/or culture within the fields we study, then as educators, our practice, pedagogies, and research methodologies should reflect this.

Following from this, a 'diversity of method' is also important for the overall quality (or health) of environmental learning research. To locate many of the new ideas and approaches in this area, one needs to look outside traditional environmental education, towards general educational research, or to other fields such as environmental justice, indigenous education, science education and health education to name only a few examples. Diversity of method speaks also to the question of "*what counts as research?*"

In response to this question I propose that a range of strategies (rather than a limited subset) would be more desirable. For example: in an environmental or

ecological curriculum, educators often work diligently to facilitate students' understandings of the concept of *biodiversity* and a range of associated scientific and ecological benefits linked to the planet's overall wellbeing. The belief is that the same should be said for the practice of educational research. As a new journal, *Eco-thinking* aims to highlight the need for a diversification of research method as well as cultural voice. In closing, a *biodiversity metaphor* is used below to describe a pluralism of method that this journal will advocate for.

ECO-THINKING AS A METAPHOR FOR DIVERSITY

The word 'biodiversity' was coined by biologist E.O. Wilson in 1986 as a contraction of the phrase 'biological diversity' and came into widespread use after the United Nations' Rio de Janeiro 'Earth Summit' Conference in 1992. Biodiversity is described as the *variety* of living things, including *diversity within species*, *diversity between species* and *diversity of ecosystems*. An ecosystem is any interacting system of living organisms including their relationships with each other and their surroundings. In a properly functioning ecosystem the components are inseparable and act upon each other.

If the educational system is viewed with this lens, it may be seen as a complex ecological system in which practitioners, researchers, specific places and endemic cultures are part of an interrelated whole. It follows naturally then, that diversity in research is desirable both for the health and survival of the entire system. In this metaphor, various research methods and epistemologies would arise from unique, situated contexts and would have special relevance for that specific 'ecology'.

When diversity characteristics are assessed for any location or region, three attributes can be considered as contributing to this metaphor. The first theme, *composition* would describe the parts of each diversity component in an area (for example, the unique social context of the setting, programmatic elements, pedagogical approach, demographics, etc.). This aspect refers essentially to the *habitat* of students. Next, the *structure* of the diversity theme could refer to physical characteristics supporting that composition (for example, class size, type of school, grade level and all the inherent systematic functions related to these). Finally, the last aspect of the metaphor refers to the *function* for the diversity. This serves to describe the processes affecting educational life within that structure (e.g. teacher's intent, curriculum, values and ethics imbued in all of these processes). All of these impact the learning environment of students.

GETTING STARTED WITH ECO-THINKING

The first contributed article by Bonnie Shapiro from the University of Calgary investigates school structures and uses a semiotic framework to consider how these can effect the educational process. She recounts recent attempts to make better use of buildings as learning tools and the incorporation of educational concepts into institutional building design, structures and outdoor spaces. In these examples, Shapiro shares how the physical features of learning environments function as a form of curriculum *text* to build and enhance concepts, skills and attitudes. This first article recounts how a building's architectural design, its physical structures, and the activities within the learning setting are representations of cultural and social features that constitute *structures that teach*.

The second contributed article by Julie Singleton of Texas A&M University conducts a content analysis of US national and state environmental standards for the inclusion of international sustainability values (as espoused by the Earth Charter). In this study, she relates how including values in the classroom is often contested over concerns of *whose values* are being promoted. Her evaluation of existing environmental education documents, such as standards, reveal the extent to which the values expressed by international consensus are included. Singleton relates that standards are reliable data in this exercise as they constitute reflections of educational policies and/or cultural indicators.

The third contributed article by Connie Cirkony of the British Columbia Ministry of Education examines how teachers find and use resources to inform their teaching practice. Her study draws on key findings from research exploring the practices of BC teachers and how they used a specific suite of resources that were developed to support the implementation of environmental education in the Province of British Columbia. Cirkony's findings are of interest to those who are looking to implement environmental learning in their teaching practice, or to develop related resources and professional development for teachers.

The final article contributed by Indigenous scholar, Vicki Kelly of Simon Fraser University explores the role of the 'pedagogy of place.' It examines the role of what she describes as a pedagogy of the imagination and how we locate ourselves within specific cultures and worldviews. She also shares her perspective on how Indigenous people understand the environmental ecology and the cultural ecology of a place as a living animated wholeness. Kelly tracks her lived experiences within this integration and shares how they create a specific sensibility, view of the world, and perspective on environmental education. Her research concludes with a vision of the implications of an Indigenous arts-based process in teacher education.

WELCOME TO ECO-THINKING

In summary, the journal *Eco-thinking* proposes a metaphor of *diversity* in the sharing of original peer-reviewed research. As editor, I believe that supporting a healthy and diverse research community is congruent with support for the diversity of programs now emerging on the global scene. I am thankful also for the support of the United Nations University and its global network of Regional Centres of Expertise (RCEs) on Education for Sustainable Development. *Eco-thinking* hopes to honour a diversity of cultural perspectives, methods and contexts in order to encourage an energetic, vibrant research community respondent to a changing world with continued and fresh perspectives. With the launch of this new journal, *Eco-thinking* hopes to begin to tell the rich tapestry of that story.



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