

## **EDUCATION FOR CULTURAL AND ENVIRONMENTAL SUSTAINABILITY: BUILDING CULTURAL BRIDGES WITH ABORIGINAL LEARNERS AND THEIR 'CLASSMATES' IN THE SCIENCE CLASSROOM**

Dr. Annamarie Hatcher, Senior Research Associate, Institute for Integrative Science & Health, and Adjunct Professor, Science and Technology, Cape Breton University [Annamarie.Hatcher@cbu.ca](mailto:Annamarie.Hatcher@cbu.ca)

**Abstract:** The devastating impact of humans on Mother Earth may be seen as a result of the anthropocentric hierarchy which is evident in many Western Sciences. Mother Earth is calling for bridge-building between Western and Indigenous worldviews.

*"The exploration of traditional American Indian education and its projection into a contemporary context is much more than just an academic exercise. It illuminates the true nature of the ecological connection of human learning and helps to liberate the experience of being human and being related at all its levels." (Cajete, Futures 42:1126-1132, 2009)*

The academic classroom is still a foreign environment for Aboriginal students, particularly those who are living on reserves, closely connected with extended families and long-held cultural values. Despite the good intentions of many educators, the effects of colonization and racism are still evident. It is time to develop a new kind of educational process, an *"ecology of Indigenous education"* (Cajete, Futures 42:1126-1132, 2009), to allow Aboriginal peoples to participate fully in academic science and to share their deep cultural traditions concerning sustainable living. I have found that this sharing benefits all students. In this presentation I will outline many of the principles and practices that can prepare a science class for Two-Eyed Seeing, a guiding principle for cultural border crossing (Albert Marshall, Mi'kmaw Elder). This paradigm shift is based on my own learning journey with many guides, including Aboriginal and non-Aboriginal students in University and Community College and Mi'kmaw Elders in the Atlantic Provinces of Canada.

**Intended outcomes:** My own journey into Two-Eyed Seeing in academia has been transformative and I have seen the same in several of my students. My hope is that, after my presentation, educators and learners will become more aware of the small changes that they can make in their own learning environments that may open a larger path for science education within a cultural context.

**Relevance of session objectives to session audience:** I have presented these concepts to a diverse range of audiences and have always received positive comments about 'opening eyes'. The presentation will be largely based on my recent paper: Hatcher, A., 2012. *Building cultural bridges with Aboriginal learners and their 'classmates' for transformative environmental education. J. Environ. Stud. Sci. 2:346-356.*

### **Content directly addresses these questions:**

- How do we better teach and learn about sustainability within the context of a course or degree program?
- How can we make places of higher education more sustainable, both via bottom-up and top-down approaches?
- How do we build community in our classrooms, and how do we extend our learning communities both inside and outside the walls of academia?
- What role can higher education play in sustaining Aboriginal or other community cultures and languages?
- How can we sustain, among individuals, a commitment to education and learning?
- How do we transform our traditions for the longer term?
- How can post-secondary education and training be both responsive and responsible?