

## International Sustainability Education for the 21<sup>st</sup> Century

By June Gorman and Kristen von Hoffmann

Education for the realities of our globally interdependent world necessitates a paradigm shift in the American view of standard International Education and Sustainability Education. This shifted understanding can explain not only how the two interrelate but essentially combine to become *the* education for a sustainable future world in the 21<sup>st</sup> Century.

Earth is the planet we all share. Based on this large-scale ecological model, an education that ensures our mutual survival must be an education that puts together the broken pieces of former pedagogical frames into “whole systems understanding” or a systems analysis approach to interdisciplinary problems. Ultimately, it is the same understanding of the interconnectedness of all things inherent in the ecological model.

Thus educational “disciplines” that separated the scientific from the natural world itself, and then separated these again from the “social sciences,” allowed us to create technological models that were ultimately destructive to the larger system we all depend on for mutual survival. It allowed us to create economic systems that took neither the social nor the ecological into account, and resulted in creating great wealth for a very few, with true ecological devastation to the planet we all depend on for that mutual survival, despite some real technological and valuable scientific advances. Yet, there are few who now dispute given global climate change, environmental degradation and the continued poverty and suffering of untold billions, that overall these are unsustainable results.

An education that reconnects these systems and ways of thinking must be one that creates the problem-solving actor who can understand the critical environmental crises in their international contexts and the crucial social-political and economic crises that define many of those contexts. You literally have to educate for a “world” thinker and doer. The essential paradigm shift then, is not just in minor curriculum and some added subject matter but a shift at the root understanding of the learner-thinker and engaged problem-solving mind a sustainable society hopes to engender. This would mean deeper classroom climate analysis, social inequities and power differential examinations and changes. It would mean, as many international educators already define the term, inclusion of human rights, indigenous people’s history and rights, economic justice and environmental issues to under gird any truly sustainable education, as these issues actually occur connected in context to those children’s world and then from that context to the larger world.

That’s the overarching pedagogical context of a viable International Sustainability curriculum that would actually reflect 21<sup>st</sup> Century realities. How does that model of education become implemented in the actual 21<sup>st</sup> century classroom?

Once the basic premise of the system interconnectedness is understood, the curriculum actually flows much more logically than the “broken” disciplines previously kept isolated in context from one another. The best models of this path back to more “natural” ways of learning would include experiential/simulation education, community education and actual outdoor expeditionary education. The goal is to both put these children back in the

world and literally bring the world as their reality, back into the classroom. Though for many educators and policy thinkers this may seem like too ambitious a step, for the children themselves it is a much more natural frame of understanding that reflects the natural ways they learn already, given current brain theory.

The brain literally learns by connection; the human being learns by creating frames of meaning. The more “natural” the frame of meaning – and there is no more natural context to learn than their own environment taken in by their 5 senses from their earliest experiences – the easier and more natural their frame for understanding. All content needs to be connected to what the students can and already do perceive in their own lives. Thus, all learning, including math, history, reading and writing becomes connected in the “meaning” frame of their environment and their world.

One wonderful example of this is the simulation experience of Model United Nations. The underlying premise is that children do not need to wait to have all the “pieces” ultimately put together by discrete and disconnected “bits” to then address complex problems, but rather to have them become immersed in some of the most complicated, serious and multi-faceted problems currently facing our world now. Then working together, *learning together* in context and with some guidance, they create their own solutions. They literally learn and think “by doing” complex problem solving in open-ended environments and complex systems. What is amazing is how well, when asked, they put the pieces together to create solutions very much like and sometimes even more equitable, than their adult counterparts.

More importantly, in the midst of doing so their learning encompasses not only complex subject matter about countries far different from their own, but also the emotional, social and cultural intelligences needed to resolve complex issues across diversity barriers: perhaps the most important learning skill set for the multi-lateral, 21<sup>st</sup> Century thinker.

Another excellent model for teaching and implementing sustainability in the classroom is the Greenfox5—a colorful visual model and strategy for conceptualizing sustainability, as it defines the five main points of environmental optimization for any system as Energy, Waste, Food, Products, and Greenspace.

As a visual representation, the Greenfox5 consists of five colored circles that represent each of the Greenfox5 categories. To point to any object inside or outside a classroom, students find that it falls into one or more of these categories. In essence, any object, artificial or natural, will land in one of the Greenfox5 categories. Students can start by learning about one category, while keeping in mind that there are five, all of which interconnect. This model can be used to set up a sustainable classroom or school, as well as to teach sustainability curriculum.

The Greenfox5 is a strategy for teaching as well as creating sustainable building systems, because it is a holistic approach to greening an entire building, both inside and out, both physically and systematically.

Because the “whole systems” approach to internationally sustainable education is based on both the premises of “connectedness” and sensory ways children learn both about themselves and their environment, the Greenfox5 school model involves the children

intrinsically in this learning and incorporates sensory orientation into this project's teaching as much as possible.

By allowing children to explicitly engage their five senses—sight, taste, smell, hearing, and touch—in the fullest way possible, they learn to be more self-aware, and more aware of others' needs. A child who learns to tune in to the world around him develops compassion and a sharpened sense of understanding.

Ultimately this process helps students develop stronger interpersonal skills, because they understand the depth of interconnectedness among people, and eventually, among industries, economies, and cultures.

The success of our future is embedded in our ability to recognize our interconnectedness as a global community. We are no longer separate floating entities. We are all responsible to each other, and our success in sustaining the earth will require sustainability initiatives at every level—domestic, town, state, federal, and global. The sustainability transformation is a movement that requires us to educate our children with the facts of the world, but also with the higher-order *feeling* and thinking skills and action skills that allow them to frame these facts into the most sustainable future for their planet and world.

Thus, the interpersonal across small and large scales, the emotional, social and cultural intelligences, the human rights, indigenous people's history and rights, economic justice and environmental issues all must be ultimately connected into the whole system that defines the human ecology of a planet and a species survival. For those who consider this too difficult, too large a frame for an educational pedagogy to embrace, we argue it is the most natural frame and brain-theory construct that the human child already understands and can most easily incorporate through the engagement of both their mind and five senses. You start with these and their local environment, the school and community itself, to build this "frame" up from its natural sensory construct, tying all the pieces together in a whole systems model.

To teach for a sustainable future for that humanity and its shared planet, one must think in whole concept understanding that connects all the systems and all that humanity, in the most natural ways. That would mean the only truly "sustainable education" is one that is not only international but actually creates the engaged, problem solving learner able to resolve complex, interdependent global issues on which human survival and quality of life revolve. This is the educational model on which all our futures in this 21<sup>st</sup> Century world depends.

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