

History of the concept of environment

For hundreds of thousands of years humans have been imbedded in their environment
With domestication and agriculture came urbanization. Humans conceived themselves as distinct from the natural world. Wayland Drew refers to boundary between humans and their environment as the "Green Wall"
The concept of nature as "other." The birth of a "nature-culture" distinction
The emergence of environmental problems - a focus on the word "environment"

Open a newspaper

Environmental Problems:

Global warming

Environmental Problems...

Habitat destruction

Species depletion

Invasive species

Increasing levels of pollution

Burgeoning human population: as of May 7th 2009:

6,778,271,409

"Ecophobia"

A word coined by David Sobel, an environmental educator to describe the feelings of fear and paralysis some children encounter when dealing with the magnitude of environmental problems.

How many hours per day does the average child spend in front of a glowing screen?

TV, DVD, Electronic games, Cell phones, etc...

An astonishing 4 and ½ hours per day!

In North America, a child spends more time in front of a glowing screen per day than anything else (with the exception of sleeping and going to school).

Nature Deficit Disorder

Term coined by Richard Louv.

Non medical term

“cumulated effect of withdrawing nature from children’s experiences.”

Nature Deficit Disorder (NDD)

What are the consequences of a childhood spent indoors?

Rates of childhood obesity in Canada have almost tripled over the past 20 years. Recently, a study from the Institut de la Statistique du Québec revealed that 25 per cent of nine-year-olds and 50 per cent of 16 year olds are at risk of acquiring heart disease later in life because of the lack of physical activity and high rates of obesity.

Consequences of “NDD”

Marked increase in ADHD (Attention Deficit Hyperactivity Disorder), distractibility and lack of focus, feelings of stress, and social awkwardness

Unintended consequences of the “NDD”

Children are becoming disconnected from their surroundings, their environment, the very processes of life that sustain them. The natural world...their environment is becoming a foreign country

Unintended consequences of the “NDD”

The outdoors is being perceived as “unsafe” by parents and school administrators

Statistically child abduction is no more likely now than it was 30 years ago

2007 56 children abducted in Canada

1 in 250,000. Compare with:

Odds of 1 in 90 being involved in an automobile accident

Consequences of “NDD”

When does “too safe” become “unsafe”?

Children have a right to play outside, to engage with their natural surroundings

Children need to breath fresh air, to romp and to play in the outdoors

Are kids “super supervised?”

Environmental Sensitivity

Defined as the ability to see the environment from an empathetic perspective

Tanner found that most environmentalist had rich encounters with the natural world as children

Environmental Awareness Early Childhood (from birth to six)

Early Childhood firm relationship with mother/father/family

The self is the world

Experimenting with cause and effect, with objects, with consequences

Sensory motor stage

Focus on needs fulfillment

Focus on micro-environments

Environmental Awareness Middle Childhood (ages 7 to 11)

A child conceives of him/herself in an environment

Great appetite for the outdoors

Beginning of autonomy, emerging empathy

Play and imagination, making worlds, inventing, receptiveness to stories

Heightened sense of wonder and awe

Focus on content, less on process

Environmental Awareness Adolescence (ages 12 to 18)

A redefinition of self

Who am I in the world?

Focus on social issues
Able to perceive macro-environments
Able to understand process and content
Able to process bigger concepts
Able to understand complexity, systems
Sense of justice

Jacob's theory of age appropriate Environmental Education
Implications for Environmental Education

Growing up is about ever widening fields of self
To foster environmental awareness we must provide children with rich experiences in the natural world
Teaching children about environmental problems occurs later in childhood development

Question:

How do we overcome NDD and at the same time encourage caring, compassion and advocacy for the environment in our children?

Best Practices

Naturalization

Garden of Plenty
Compost World
Butterfly garden
Naturalization

Manage the scope

A little each year. Empower students, parents and committees to take ownership.

Bird feeders, butterfly gardens, small ponds, a corner of the school yard

Planting local shrubs, trees and plants which attract wildlife

Small short term steps...long term gains

Proximate Nature

Immersion time

Phenology and seasonal change

Magic spots

Witnessing seasonal change/being active participants in the unfolding of nature

Two memorable quotes:

“A few intimate places mean more to my children than all the glorious panoramas I could ever show them”

“To begin with, it helps to look into every face”

Sue Staniforth argues:

Attend to the three c's

Connection, Care and Concern

She believes good environmental education is about experience and relationship

Building a relationship and intimacy

Edward Borroughs:

“Knowledge without love will not stick. But if love comes first, knowledge is sure to follow”

Overcoming NDD

Exploration

Dice

Detectives

Hole Patrol

What to say and what to refrain from saying; the power of back loading and front loading

Tracking and Trailing

Importance of play

Initiate

Negotiate/mediate

Solve problems

Use of creativity and imagination

A stick becomes a wand, a sword, a digging tool

A forest becomes a castle, a fort, a mysterious land

The Value of Play in Nature

Playing in nature promotes healthy development. Swedish scientists have found that children who explore and play in natural environments tend to be less competitive, more co-operative and demonstrate fewer incidents of “interrupted play” (requiring adult intervention to prevent arguments and fights) than those who play in areas dominated by asphalt and play structures. Louv points out that being in natural areas enhances creative thought, stimulates imaginative play and improves a child’s ability to concentrate during school.

Creative Nature Play

Giant Spider’s Web

Squirrel’s Drey

Encampment Area

Shelters and forts

Acclimatization

Bird songs and frog songs, insect songs
Sensory awareness: earth walks
Natural art
Andy Goldsworthy

Why tell stories?

Why tell stories?

We are narrative creatures.

We tell stories all the time

Stories continued...

Stories help build empathy and caring.

Stories help to foster creativity.

Stories are empowering for students.

That is all well and good...

But what about action damn it!?

Traditional linear model for changing behavior:

"increased knowledge leads to favorable attitudes...which in turn leads to action promoting better environmental quality" (Ramsey and Rickson, 1977).

Ingredients of Responsible Environmental Behavior (Hines, J.M., et al., 1986):

People are more willing to do something about an environmental problem if they feel it is an issue of importance. Most often this is a local issue of concern in their community -- something that impacts them directly.

Secondly, people will become empowered to do something about a problem if they have training and knowledge in problem solving strategies and action skills.

Bill Hammond's action triangle:

3 aspects of action learning: learning about action, through action and from action.

These are very distinct domains of learning, each with their own skill sets and contexts.

Learning about and practicing action skills,

Learning to do action by direct involvement in a project, and

Learning from action – reflecting on what students did – the significance of the action on themselves and the community.

Action skills

A basic set of action skills can be learned and must be taught, practiced and applied. These include:

how to identify, research and investigate the selected problem or issue

development of communication skills (letter writing, phone calling, public speaking)

development of presentation skills

development of leadership and group organization skills

understanding alternative strategies and

developing capacity for project sustainability and continuity.

Environmental Resources:

Kawartha Environmental Educators Network (KEEN) - www.keenet.org

This is an organization comprising of local environmental educators who gather twice a year to discuss and evaluate environmental education issues. KEEN has

received funding to post environmental resources. There is a lot to look at here. They have a wonderful environmental resource links!

Evergreen Foundation - www.evergreen.ca

Is a national non-profit environmental organization with a mandate to bring nature to our cities through naturalization projects. Evergreen motivates people to create and sustain healthy, natural outdoor spaces.

Journey North – www.learner.org/jnorth

Journey North tracks the journeys of a dozen migratory species are tracked each spring. Students share their own field observations with classrooms across the Hemisphere. In addition, students are linked with scientists who provide their expertise directly to the classroom. Several migrations are tracked by satellite telemetry, providing live coverage of individual animals as they migrate. As the spring season sweeps across the Hemisphere, students note changes in daylight, temperatures, & all living things as the food chain comes back to life.

Canadian Journal of Environmental Education - www.edu.uleth.ca/ictrd/cjee

CJEE explores a variety of environmental topics relevant to educators

Green Teacher – www.greenteacher.com

Green Teacher is a magazine by and for educators to enhance environmental and global education across the curriculum at all grade levels

Institute for Earth Education - www.ieecanada.org

The Institute for Earth Education is a non-profit, volunteer organization made up of an international network of individuals and member organizations. Their purpose is to foster the creation and maintenance of quality earth education.

Project Wild, Focus on Forests, Fishways www.wildeducation.org

An amazing series of games, activities and lesson plans which help students to become positive stewards of tomorrow's natural spaces. You must take the course to receive the 3 manuals. Well worth the effort! Visit this web site for more information.

Federation of Ontario Naturalists – www.ontarionature.org

The Federation of Ontario Naturalists (FON) protects Ontario's nature through research, education, and conservation action. FON champions woodlands, wetlands and wildlife, and preserves essential habitat through its own system of nature reserves. FON is a charitable organization representing 25,000 members and supporters and 119 member groups across Ontario.

For a wonderful list serve on Environmental Education try www.eeon.org (Environmental Educators of Ontario). Try also

Canadian Environmental Literacy Project (www.celp.ca)
For a general overview of environmental issues, go to
<http://www.earthportal.org/>

Good Luck!

Camp Kawartha Initiatives...

Rotary Hall
Outside of Rotary Hall
Alternative Energy Initiatives

Solar BBQ
in action

International Straw Bale Convention