

# **Education and Ecological Restoration A Mutually Beneficial Collaboration**

Parks Canada – Public Information and Education

October 2007 – Waterton Lakes NP



- Make reference to EI/SAR Strategic Plan document

## What I'm Hearing about Ecological Restoration

- acid test of our understanding of ecosystems
- complexity and uncertainty
- integration of scientific, cultural, social, political, ethical dimensions
- individual and community engagement
- passionate practitioners

**Rich grounds  which to learn!!**

## A Range of Learning Opportunities

- participation in ecological restoration on the ground
- participation in planning process
- reporting observations
- monitoring progress
- preparing for restoration (collecting seeds, growing seedlings)
- interpretive trails
- behind the scenes
- teachable moments

## A Range of Learners

- community members
- volunteers
- visitors
- adults, youth, families
- individual and collective
- ourselves

## A Range of Outcomes

### Perspectives in environmental education

#### **From an educational perspective**

- Connect Canadians to their natural heritage

#### **From an environmental perspective**

- Improve the state of ecological integrity

#### **From a pedagogical perspective**

- Maximize the effectiveness of public education

(Sauvé, L. - UQAM)

## A Closer Look at Outcomes

Awareness

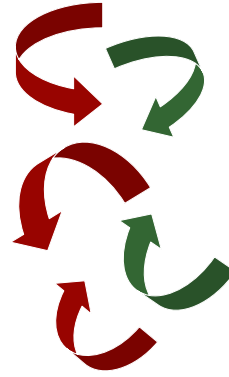
Knowledge - Understanding

Attitudes - Values - Motivation

Skills - Abilities

Participation - Engagement - Action

(UNESCO)



## Educational Perspective

Connecting Canadians to their natural heritage



## Place-based Education

- knowledge disconnected from tangible experience, real problems, the places where we live
- “biosphere people”
- loss of ecological identity, insensitivity to rhythm of life
  
- personhood, place and pedagogy
- learning anchored in places provide opportunities for rootedness, responsibility and belonging

(David Orr)



## Pedagogy of Hope

- shocking and scaring people into action?
- hopelessness and helplessness
- 3 “P” of learned helplessness – pervasive, permanent and personal

*« Presenting issues that we can seemingly do nothing personally about and yet implying that we has individuals should be held personally responsible for seems to be a recipe for loss of self-esteem and an increase feeling of helplessness »*

(Koole and Kelsey)

- 3 “C” – capacity, collaboration, celebration

## Nature Deficit Disorder

- decreased opportunities for contact with nature
- contact with nature mediated through technology
  
- specific benefits of interacting with nature
- curiosity, observation
- caring, connection
- formative experience

(Last Child in the Woods)

## Rich Environmental Education Context

Reflecting Diverse Conceptions of the Environment

- nature
- resource
- problem
- system
- « milieu de vie »
- biosphere
- community project

(Sauvé, L. - UQAM)

# Environmental Perspective

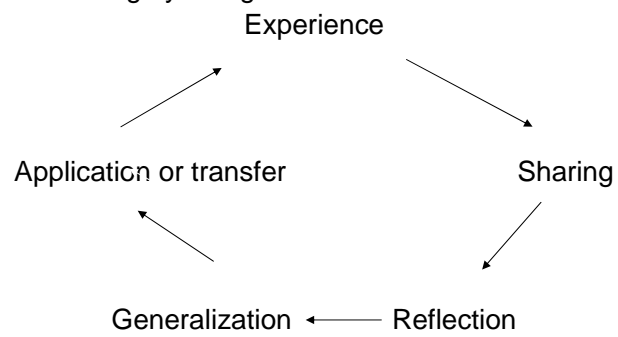
Improving the state of EI

- as a direct result of contributing to ecological restoration
- as the result of building a constituency of individuals and groups who act as stewards through support and engagement



# Experiential Learning

More than learning by doing



(Kolb)

## Action Research

### Reflection in Action

- Why are we carrying out this project?
- Are our goals and objectives changing along the way?
- Are our strategies appropriate?
- What are we learning?
- What do we need to learn?
- Is our project dynamic healthy?

Continuous reflection affects learning

## Environmental Problem Solving

- inquiry-based
- critical (questions assumptions)
- community context
- collaborative
- outcome is unpredictable

(Robottom and Hart)

## Collective Environmental Action

- sense of well-being – doing something useful
- reconnection to environment and community
- sense of being able to take action – leading to further environmental action

(Pruneau)





## Ecological Restoration and Education

**Thank you**

**Looking forward to further collaboration**