How do people learn?

**Positivist (Behaviorist)**
education about the environment
How do people learn?

**Interpretive (experiential)**
education through the environment

![Image of people in a circle]

How do people learn?

**Socially critical**
education *for* the environment

![Diagram of a cycle with people forming a puzzle]


THE TRANSFORMATION OF ENVIRONMENTAL EDUCATION (EE) INTO EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD)

The transformation of EE into Education for Sustainable Development

- In the 70s it involved progressive educational attitudes and many educators (and not only) hoped it would change education as a whole
- 80s - Restructuring of EE
- Milestone: Agenda 21 (1992, Rio conference) – sustainable development is introduced as a main international educational priority
The transformation of EE into Education for Sustainable Development

- 2005 - “Decade for Education for Sustainable Development” – urges every nation to integrate ESD at all levels of schooling
- In the UK: eco-schools, sustainable schools, global learning programmes
  - OFSTED: all schools should become sustainable schools by 2020!
- Secondary schools: teach environmental issues primarily through geography, science and PSE

CONTROVERSY IN THE FIELD OF ENVIRONMENTAL TEACHING
The transformation of EE into Education for Sustainable Development

Sustainable Development is

• A buzzword linked to the configuration of the modern governing status
• Ambiguous (300 terms!)
  Blurs social inequalities and dominant relations
• Presents green economy as the overall solution to environmental problems

Education for Sustainable Development

• Delivers and propagates experts’ ideas
• Is linked to the green development agenda rather than schools’ local educational and environmental background
• Sets mainly behaviorist aims (such as “recycling”, “energy saving”) neglecting a holistic approach
• Involves a hidden curriculum (e.g. social relations are presented as a set of individual choices (e.g. consumerist))
THE POTENTIAL OF A SOCIALLY CRITICAL APPROACH

Socially critical environmental education

"[e]cology must be present in any educational practice of a radical, critical, and liberating nature."
Socially critical environmental education - Characteristics

- Learning process = Social/environmental issues, everyday life
- Teaching aims = Activisation about the environment
- Nature of Knowledge = Creative / emergent, collaborative, dialectic, originates from research
- Power relations = Challenged
- Teacher’s role = Collaborative participant/researcher
- Students’ role = Actively produce knowledge

"Ecology must be present in any educational practice of a radical, critical, and liberating nature."

Socially critical environmental education

- Alternative concepts:
  - Education for sustainability (weak&strong)
  - Ecopedagogy
  - Eco-justice pedagogy
  - Critical Ecopedagogy
Empowering science education

- Science is connected with global sustainability
  But schools
- Place a focus on knowledge acquisition
- Exclude the possibility to participate in science
  and environmentally related communities
On the other hand
- teaching science for social justice not only can
  provides access to mainstream knowledge and
  practices but also opportunities to question,
  challenge and reconstruct knowledge

What should science education look like so that students can be empowered to critically address the inequalities in their lives by drawing on what they learned from science classes?

*To fiercer, weightier battles give expression.*
*Walt Whitman - 1871*