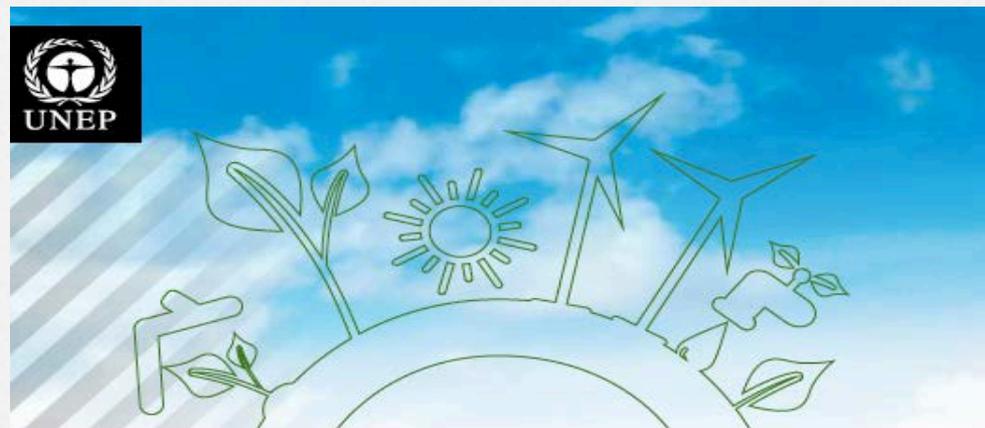




Green Skills in the Classroom

Innovative Approaches to Teaching and
Learning

John Fien



Towards a
GREEN economy
Pathways to Sustainable Development and Poverty Eradication



UNEP (2011)



Definition

A Green Economy can be defined as an economy that results in improved human well-being and reduced inequalities over the long term, while not exposing future generations to significant environmental risks and ecological scarcities.

In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive.

A Green Economy should:

- o aim to **satisfy human needs**: providing universal access to water, food, health, housing, education, transport, culture;
- o be based on **justice**: be capable of distributing the costs and benefits fairly, between and within countries;
- o be **inclusive**: young people, women...everyone must be part of it!
- o be a **real economy**: do away with the speculative economy and the economic, financial and real estate bubbles – **appropriate development**;
- o be based on **the four pillars of the Decent Work Agenda**: 1) full employment, 2) labour union rights, 3) social protection, and 4) dialogue and participation.

International Labour Foundation for
Sustainable Development (Sustainlabour) 2011

Two types of Green Skills

- 1. Skills for working in a Green Economy**
- 2. Skills for helping to bring a Green Economy about**

In other words,

- 1. Vocational and Productivity Skills**
- 2. Social and Citizenship Skills**

**These require innovative
approaches to learning and
teaching in the classroom . .
. and the lab, the office, the
beauty salon, the shop floor
. . . everywhere we learn**



A long time ago in a galaxy far,
far away.....



Education 101

Curriculum

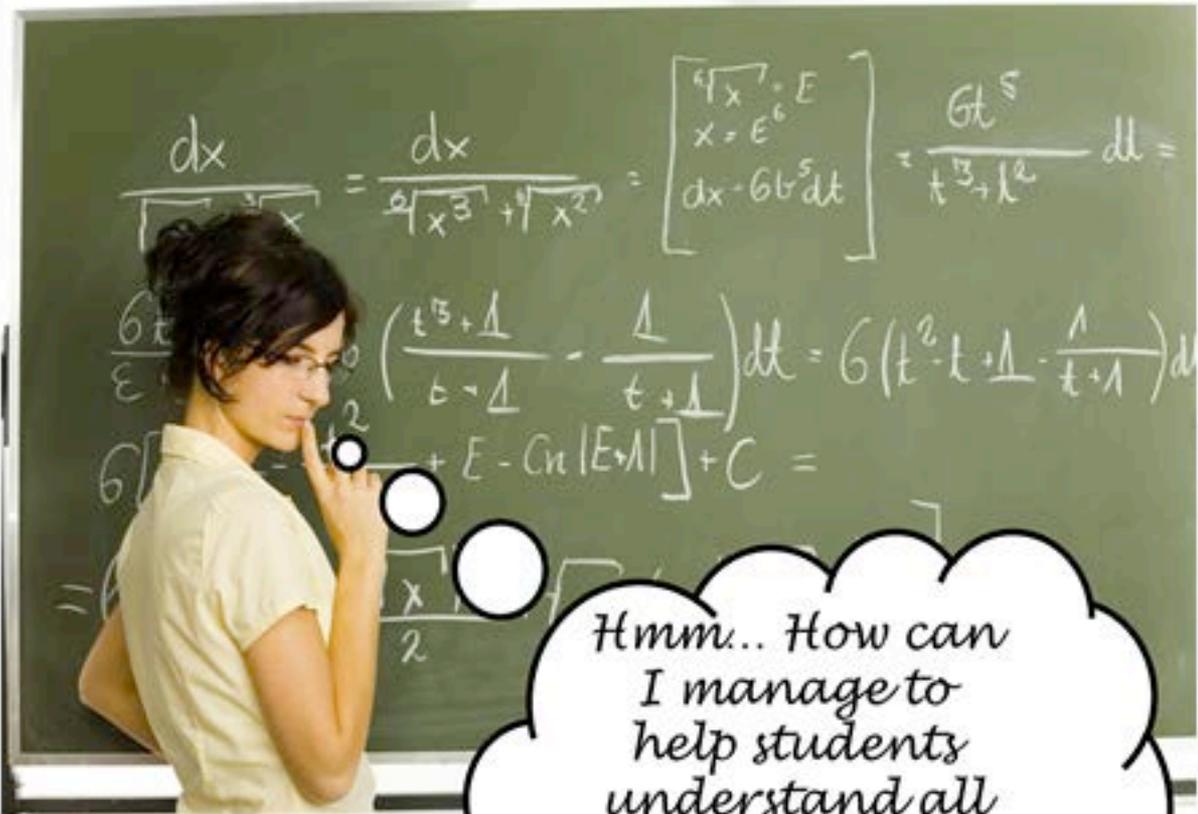
Pedagogy



The future

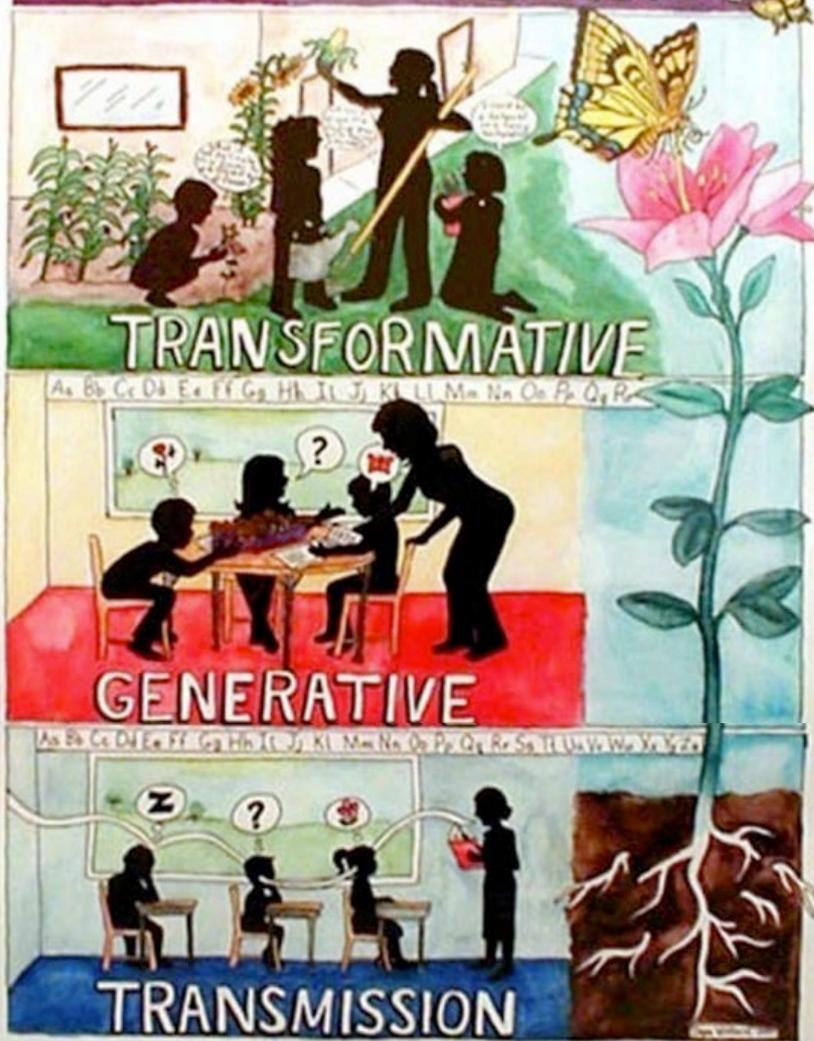
We're going to make the world a better place!





Hmm... How can I manage to help students understand all this better through the use of technology?

3 MODELS OF PEDAGOGY



LEADING
CONSTITUTIONAL
CASES ON
**CRIMINAL
JUSTICE**

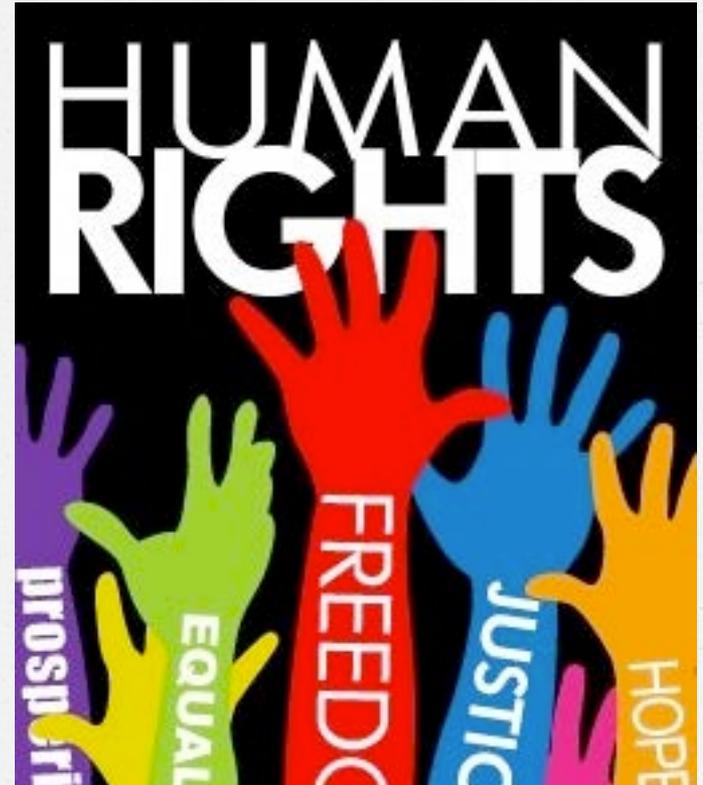
NEW EDITION

Edited by

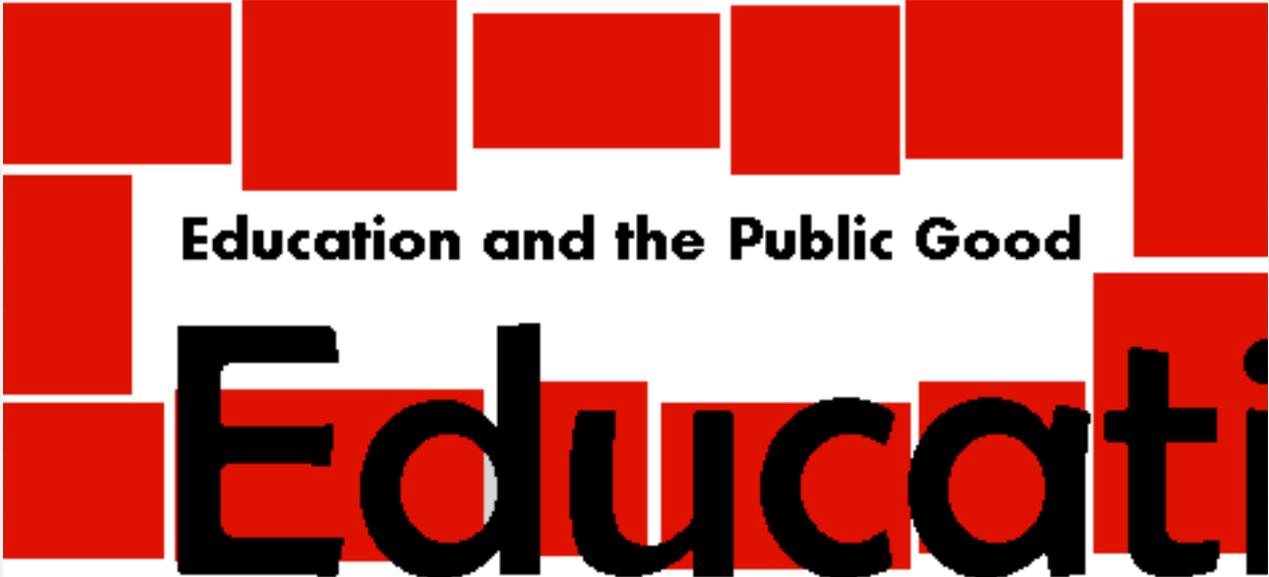
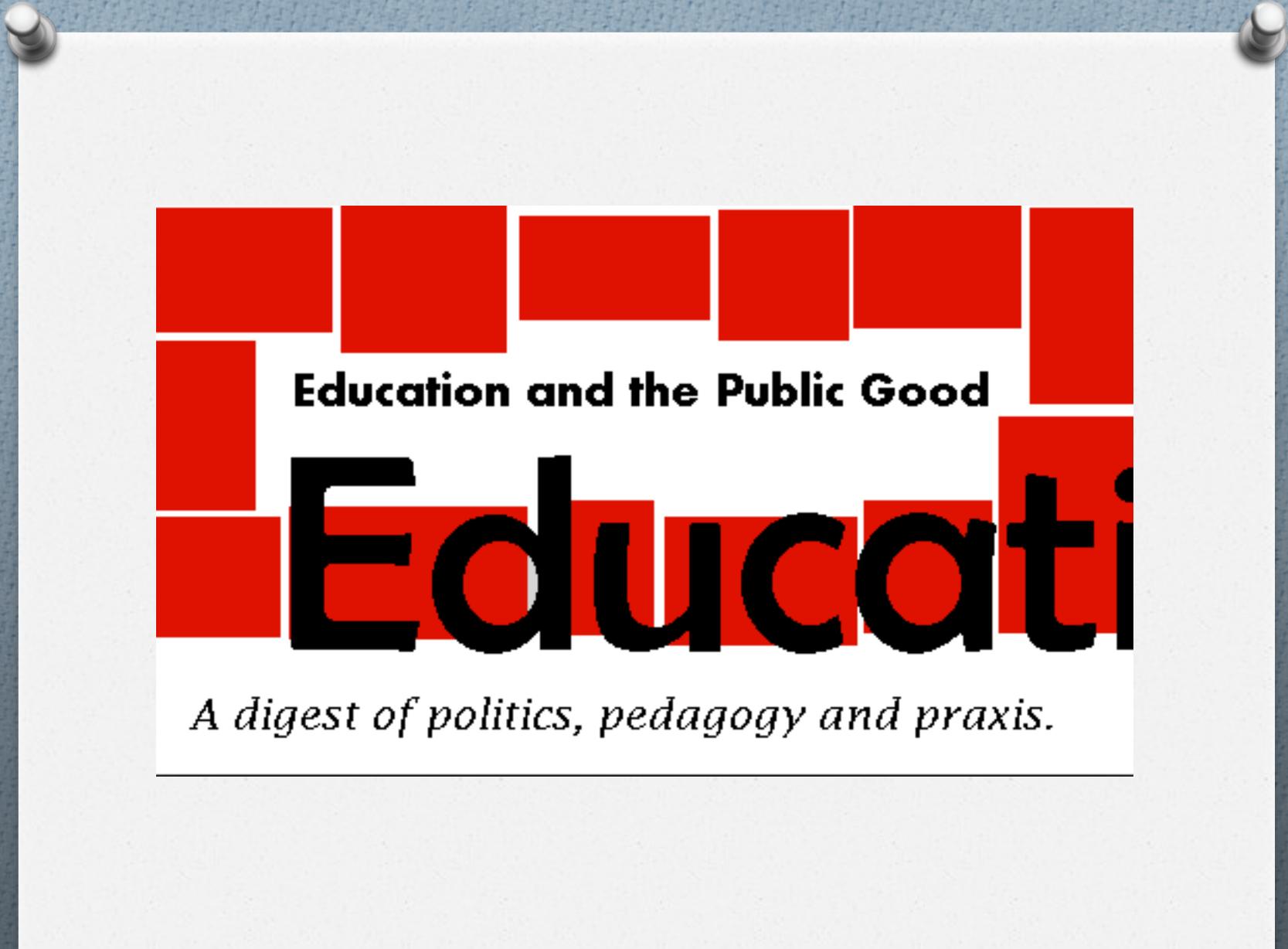
Lloyd L. Weinreb

FOUNDATION PRESS

What the law is



What the law ought to be



Education and the Public Good

Educati

A digest of politics, pedagogy and praxis.

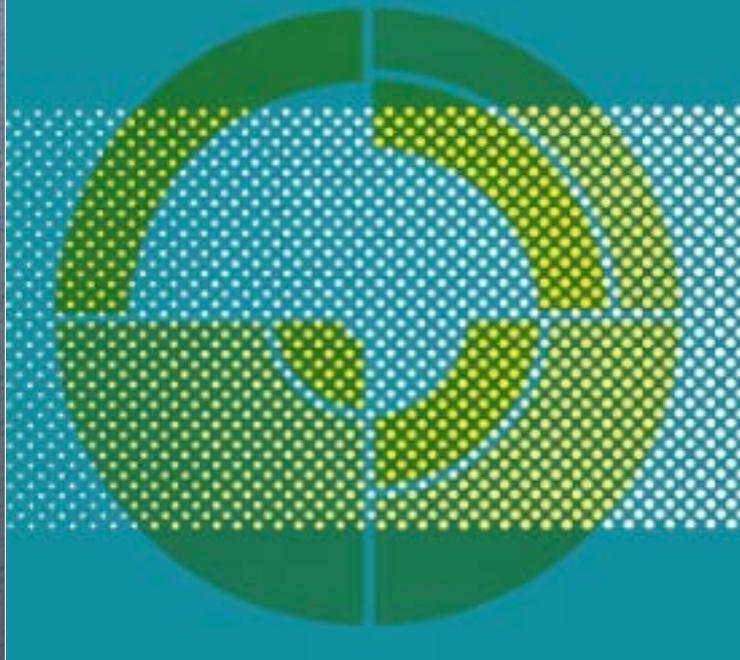
le teacher

"class please go
home and finish
your timed essay
under exam
conditions for
tomrrows lesson"



**Basic
Principles of
Curriculum
and
Instruction**

Ralph W. Tyler





United Nations
Educational, Scientific and
Cultural Organization



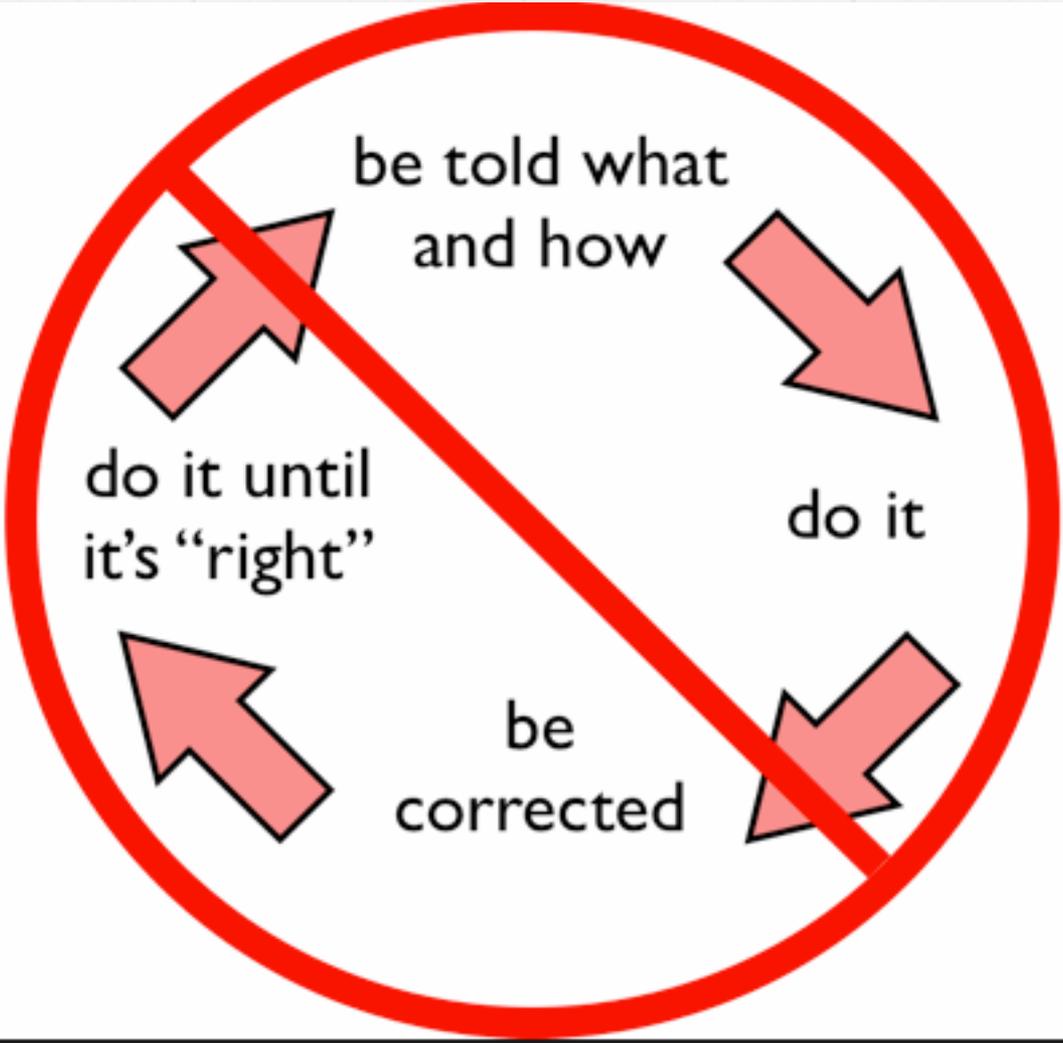
RIO+20
United Nations
Conference on
Sustainable
Development



From Green Economies to Green Societies

UNESCO's Commitment to Sustainable Development





6 critical questions

things to think about when someone has something to say

who

Who said it?

Someone you know? Someone famous?
Someone in authority?
Should it matter who said it?

what

What did they say?

Did they give facts or opinions?
Did they give all the facts?
Did they leave something out?

where

Where did they say it?

Was it in public or in private?
Did other people have a chance to talk about the other side?

when

When did they say it?

Before, after, or during an important event?

why

Why did they say it?

Did they explain their opinions?
Were they trying to make someone look good or bad?

how

How did they say it?

Were they happy, sad, angry, or didn't care? Did they write it or speak it?
Could you understand it?



TEACHING AND LEARNING FOR A SUSTAINABLE FUTURE

a multimedia teacher education programme

[About
TLSF](#)

[Curriculum
Rationale](#)

[Across the
Curriculum](#)

[Contemporary
Issues](#)

[Teaching & Learning
Strategies](#)

Teaching and Learning for a Sustainable Future is a UNESCO programme for the United Nations Decade of Education for Sustainable Development. It provides professional development for student teachers, teachers, curriculum developers, education policy makers, and authors of educational materials. The modules are divided into 4 themes. [More ...](#)

THEME 1

CURRICULUM RATIONALE

These modules present an introduction to the global realities, imperatives for sustainable development and educational issues that form the rationale of Education for a Sustainable Future.

1. [Exploring global realities](#)
2. [Understanding sustainable development](#)
3. [A futures perspective in the curriculum](#)
4. [Reorienting education for a sustainable future](#)
5. [Assessing the challenges](#)

THEME 2

SUSTAINABLE DEVELOPMENT ACROSS THE CURRICULUM

These modules illustrate ways in which Education for Sustainable Development can be integrated into all areas of the curriculum, especially into cross curriculum themes such as health and consumer education.

6. [Sustainable futures across the curriculum](#)
7. [Citizenship education](#)
8. [Health education](#)
9. [Consumer education](#)



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CLIMATE CHANGE

Introduction

Activity 1

Activity 2

Activity 3

Activity 4

Activity 5

Activity 6

Reflection

INTRODUCTION



I feel strongly that young people should be given the chance to understand climate change as soon as possible. This will help them deal not only with the immediate challenges facing us, but the longer term ones. It will, for example, assist them in making career choices, for some businesses will expand greatly while others will decline. It will also assist them with consumer choices, because as their understanding of climate change grows, individuals will develop new attitudes about what is appropriate and moral. Young people may even grow up in a world where the relationships between nations will shift. This may occur in part because the tropical rainforests offer a great way of drawing carbon pollution from the air, so the poorest farmers on our planet may become crucial partners to the wealthy nations as they seek to stabilise their climate.

Microsoft PowerPoint



ten things to do

Want to do something to help stop global warming?

Here are 10 simple things you can do and how much carbon dioxide you'll save doing them.

Change a light

Replacing one regular light bulb with a compact fluorescent light bulb will save 150 pounds of carbon dioxide a year.

Drive less

Walk, bike, carpool or take mass transit more often. You'll save one pound of carbon dioxide for every mile you don't drive!

Recycle more

You can save 2,400 pounds of carbon dioxide per year by recycling just half of your household waste.

Check your tires

Keeping your tires inflated properly can improve gas mileage by more than 3%.

Every gallon of gasoline saved keeps 20 pounds of carbon dioxide out of the atmosphere!

Use less hot water

It takes a lot of energy to heat water. Use less hot water by installing a low flow showerhead (350 pounds of CO₂ saved per year) and washing your clothes in cold or warm water (500 pounds saved per year).

Avoid products with a lot of packaging

You can save 1,200 pounds of carbon dioxide if you cut down your garbage by 10%.

Adjust your thermostat

Moving your thermostat just 2 degrees in winter and up 2 degrees in summer

You could save about 2,000 pounds of carbon dioxide a year with this simple adjustment.

Plant a tree

A single tree will absorb one ton of carbon dioxide over its lifetime.

Turn off electronic devices

Simply turning off your television, DVD player, stereo, and computer when you're not using them will save you thousands of pounds of carbon dioxide a year.

Spread the word! Encourage your friends to see An Inconvenient Truth



an inconvenient truth

in theaters this summer

www.climatecrisis.net

for group ticket sales please call

(866) 397-6339



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About TLSF Curriculum Rationale Across the Curriculum Contemporary Issues Teaching & Learning Strategies

CLIMATE CHANGE

Introduction Activity 1 Activity 2 Activity 3 Activity 4 Activity 5 Activity 6 Reflection

TAKING ACTION



Q20: Which of these actions would/do you find (i) relatively easy and (ii) more difficult to take? Why?

Q21: It has been argued that the list of actions recommended in *An Inconvenient Truth* are too individualistic and best suited to people who live in rich developed countries. Do you agree? Why?

Q22: If it is true that the actions are too individualistic and best suited to people who live in rich developed countries, why might Al Gore still have developed such a list?

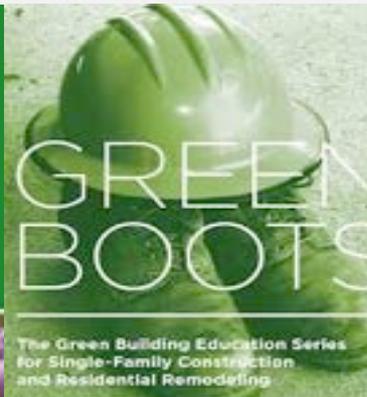
An Internet search for the terms <“climate change” + “what you can do”> on 22 March 2009 revealed 16,100 sites in Australia alone and 261,000 worldwide. When “what you can do” in this search was changed to “what governments can do”, Google identified 146 and 2,340 sites, respectively. Substituting “what companies can do” and “what corporations can do” identified a total of only 12 sites in Australia and 1,405 sites worldwide.

Q23: Conduct a similar Internet search for your country and identify how many sites are identified.

Q24: Compare the results from the Internet search in your country with the results of the search in Australia. Why might there be any similarities or differences?

Q25: Why do you think that there are more websites for what individuals can do about climate change than what companies and governments can do?

Green skills to grow your business



GREEN PLUMBING ACCREDITED GREEN PLUMBERS



GREEN BUILDING IS HERE TO STAY. ARE YOU READY?

G|PRO GREEN PROFESSIONAL BUILDING SKILLS TRAINING

FUNDAMENTALS
OF BUILDING
GREEN

CONSTRUCTION
MANAGEMENT

OPERATIONS &
MAINTENANCE
ESSENTIALS

ELECTRICAL
SYSTEMS

PLUMBING

MECHANICAL -
HVAC

G|PRO

Green Professional Building Skills Training



Green Skills

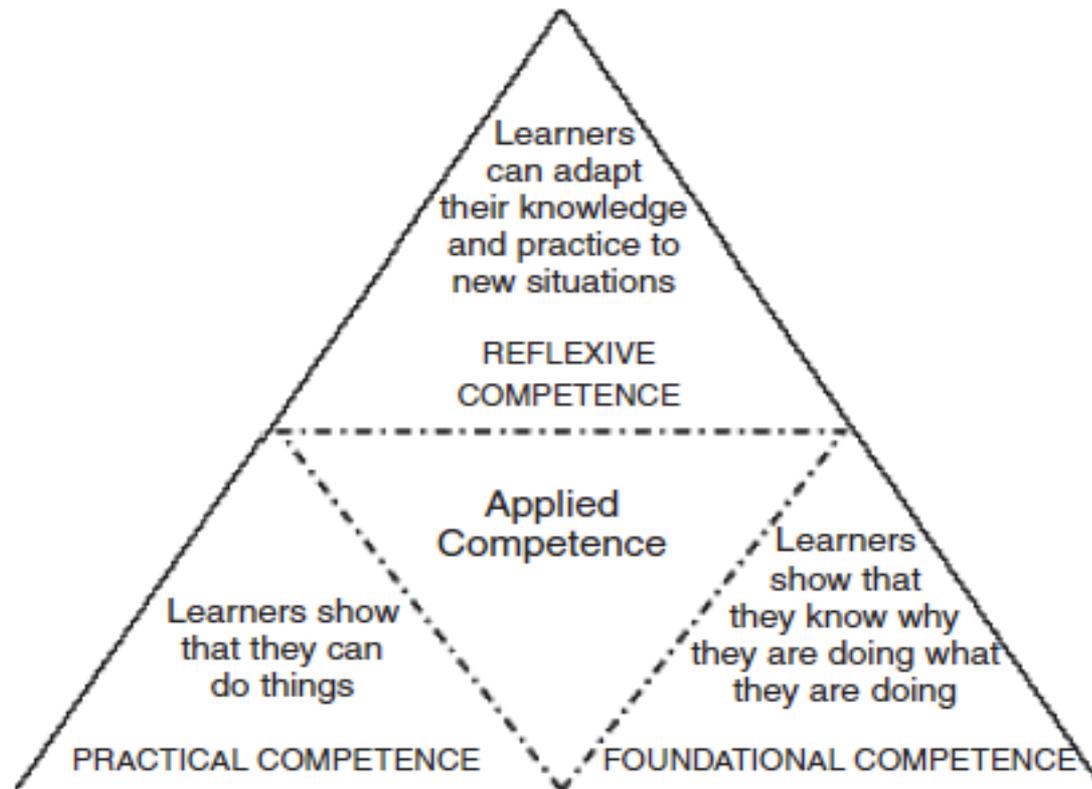
- o **Thinking** skills
- o Skills for **environmental responsibility** – e.g. energy efficiency, water conservation and waste management
- o Skills for **social responsibility** – e.g. to stand up against discrimination in the workplace
- o Skills for **economic responsibility** – e.g. financial accountability, innovation and entrepreneurship
- o Skills for local, national and global **citizenship**
- o Skills for **health** - personal, occupational, environmental and community



Thinking Skills

- Logical thinking
- Critical thinking,
- Whole systems thinking
- Multidisciplinary thinking - technological, scientific, economic, social, ecological, etc
- Ethical thinking
- Local-global thinking
- Problem-solving
- Creative thinking

Applied Skills





Applied Competence

The development of applied competence requires an integrated approach to competence development that allows for open-ended learning processes, reflexivity, critique and creative problem-solving.

It allows for alternative ways of knowing that reach beyond the status quo. It also requires a different, more open-ended and learning centred approach to **assessment**. Instrumental assessment methods that focus on discrete skills or knowledge are not appropriate for assessing applied competence.



Green Education

... the catalyst that not only saves the human race from extinction, but (which) also ... serves to unite all the people of the world in a common effort to find solutions to the perplexing and difficult problems that threaten life on the planet. (Kirk, 1979, p. 350)