



# **Reorienting Teacher Education to Address Sustainability: directions and challenges**

**William Scott**

**Centre for Research in Education and the Environment**

**University of Bath**

<http://www.bath.ac.uk/cree>

<http://blogs.bath.ac.uk/edswahs>

[cree@bath.ac.uk](mailto:cree@bath.ac.uk)

# **Reorienting teacher education to address sustainability**

## **Unesco-UNEP**

“Ministers at the [1977] Tbilisi Conference logically concluded that environmental education should be an obligatory part of pre- and in-service teacher education and pertinent to the area — urban or rural — where the teacher was going to practise. ...”

## **Reorienting teacher education to address sustainability**

### **Unesco-UNEP**

“Ministers at the [1977] Tbilisi Conference logically concluded that environmental education should be an obligatory part of pre- and in-service teacher education and pertinent to the area — urban or rural — where the teacher was going to practise.

This is still to be universally applied.”

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**Unesco-UNEP Environmental Education Newsletter (1990)**

**“Environmentally Educated Teachers**

**The Priority of Priorities?”**

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## **Unesco Project**

Active from 1998 to the present day

Involving 30 teacher education institutions in 28 countries

Working with teacher educators and with Deans of Faculty

Guidelines and 68 recommendations presented in 2005

Most recent networking conference in 2008

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## **Unesco Project Guidelines (2005)**

### **Recommendation 5.1 to Unesco**

**“Strengthen partnerships between teacher education institutions and elementary and secondary schools, and such educational organisations as museums, outdoor education sites, and nature centres.”**

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## Unesco Project

12<sup>th</sup> of 12 challenges ...

“The disjuncture between teacher training and the realities of school and insufficient evaluation of teacher training and its impact on classroom practice.”

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### **Unesco Project Countries include ...**

Vietnam

India

Pakistan

China

Latvia

Hungary

Denmark

Germany

Canada

USA

Jamaica

Barbados

Argentina

Brazil

Nicaragua

Peru

Lesotho

South Africa

Zambia

Russia

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### **Prime Minister Blair ...**

Sustainable development will not just be a subject in the classroom: it will be in its bricks and mortar and the way the school uses and even generates its own power. Our students won't just be told about sustainable development, they will see and work within it: a living, learning place in which to explore what a sustainable lifestyle means.

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### **DCSF ...**

... has reaffirmed its commitment to sustainable development. Schools are a key strand of [its] action plan and are invited to become models of sustainable development for their communities ... turning issues like climate change, global justice and local quality of life into engaging learning opportunities for pupils – and a focus for action among the whole school community.

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### ***Three key ideas about sustainable schools:***

[1] the connection between action and learning: between what schools do, as communities, and what the people in them (students, staff and governors) can learn

[2] the model of sustainable ways of working that schools can provide for the wider community

[3] the integration of activity and learning across curriculum, campus and community

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## **The 8 Doorways**

Food and drink

Energy and water

Travel and traffic

Purchasing and waste

Buildings and grounds

Inclusion and participation

Local well-being

The global dimension

# Reorienting teacher education to address sustainability

## The 8 Doorways

Food and drink

Energy and water

Travel and traffic

Purchasing and waste

Buildings and grounds

Inclusion and participation

Local well-being

The global dimension

Biodiversity

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## The 8 Doorways

- All doorways lead to the same space
- They're just convenient (and familiar) entrances
- The space is the work and life of the school as a community – *in* its community
- The space is physical and cultural – and is increasingly global

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## An holistic model ...

... which sees an integration of vision and activity across *curriculum, campus* and *community* and learning by all involved.

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### ***Curriculum*    Student learning that ...**

- integrates academic, practical and ethical concerns
- acknowledges the significance of the issues to all humanity, now and in the future
- recognises different perspectives on problems and what might now be done
- understands the complexities and uncertainties in data
- appreciates the argument for involvement at a personal / social level

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### ***Campus ...***

Greater awareness by governors, leaders, teachers and students of how what the school does might lead to:

- a more integrated consideration of issues
- energy, resource and cost savings
- the creation of buildings and grounds that can model sustainability and act as positive teaching resources
- enhanced student involvement in decision-making.

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### ***Community ...***

Increased community involvement in all aspects of school life, the opening up of the school for community use, and its inspiration for ways of more sustainable living – with the recognition that ‘community’ is now more appropriately seen at the global level, given our interdependence.

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### **There's a difference between ...**

- addressing each doorway through the curriculum
- linking this with activities in the school / community with tangible pay-back (eg, energy efficiency & lower costs)
- having this lead to student capability to respond to the challenges of sustainable development

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***DCSF: Sustainable development ...***

... is about thinking and working in a profoundly different way.

It must be much more than recycling bottles or giving money to charity. It means inspiring people in all parts of the world to find solutions that improve their quality of life without storing up problems for the future, or impacting unfairly on other people's lives.

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What government might say ...

We are encouraging schools to be outward-looking, globally-minded and future-focused, enabling open-ended engagement with wider world issues.

Going through the eight doorways is easy – it's the tensions that students confront when they do so that are important.

A school that doesn't raise these in what it does with students (and staff), is losing valuable opportunities for learning.

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“In the best lessons, teachers used a range of imaginative activities so that pupils could work individually and in groups on identifying, discussing and solving practical problems and could develop and test out their views on complex ethical issues.

The pupils responded well to such opportunities, drawing on the knowledge, understanding and skills acquired outside as well as within school.”

**Ofsted**

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## The Four Capitals

<i>Natural</i>	Energy sources, raw materials, biodiversity, ecological systems
<i>Manufactured</i>	Buildings and equipment that have to be maintained and replaced
<i>Human</i>	People's knowledge, skills, and capabilities
<i>Social</i>	Human relationships, and connections with the wider society

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### A sustainable school

- manages its use of *natural capital* to minimise its depletion
- has buildings and equipment which are fit for purpose and as efficient as possible
- maximises *human capital* by educating people, developing capacity for social action and further learning
- maximises *social capital* by adding to social cohesion, well-being and mutual understanding, both locally and globally

*And* teaches about and through the inter-relationship of 1 to 4.

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### **Crispin school's key dimensions**

- Vision in place, and ethos developing
- Leadership engaged, supportive and sustainable
- Wide range of curriculum contributions
- School grounds / buildings are learning contexts and foci
- Widespread student participation, responsibility & capability
- Community campaigns and involvement

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## **Crispin school's student action groups**

Fair Trade Café [ 30 ]

Recycling [ 30 ]

Climate change action group [ 20 ]

Energy police [ 40 ]

Ground force [ 12 ]

Kenya crew [ 20 ]

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### **Crispin school's climate change action group**

***10 in 10      Aiming for 10% energy use reduction in 2010***

- produce own bio-fuel for school minibuses
- Shut down ICT at 1630 each day
- Turn the heating down
- Make baseline assessments and monitor progress

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### **Crispin school's climate change action group**

#### ***The Year 11 GCSE Citizenship class will ...***

- Organise a debate on climate change
- Write a seasonal local produce recipe book for the kitchens
- Promote the wearing of jumpers
- Campaign for a meat-free Monday in the school
- Campaign to reduce flights and car use

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## **Crispin school's key characteristics**

- Student participation, responsibility and leadership
- Integration across subjects and extra-curricular activities
- Strong school – community interaction
- A sustained ethos

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### **If you're a specialist teacher ...**

- Acquire subject and pedagogical content knowledge
- Link the curricular with the extra-curricular
- Use school buildings & energy consumption as resources
- Develop interdisciplinary co-operation skills
- Acquire project development skills
- Develop a sense of curricular and learning progression

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**Too often we are content to know ...**

“... the degree to which students have learned what we want them to learn. From an educational perspective it is ... most often more important [to know] what else they have learnt – and, especially, what they have learnt by learning what they have learnt.”

Jensen BB & Schnack K (2004) *Assessing Action Competence*; In WAH Scott & SR Gough (Eds) *Key Issues in Sustainable Development and Learning: a critical review*, London: Routledge

## Reorienting teacher education to address sustainability

**We don't want your trainees, unless ...**

“... they can help us address sustainability, help young people learn both *about* it in the widest sense and *through* it, and help them prepare for the uncertainties and challenges that lie ahead in their lives.



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