Thinking differently about sustainability: experiences from the Open University

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Applied Systems Thinking in Practice Group
The Open University, UK
Overview

1. The Open University and Systems Thinking in Practice
2. Challenges 1: learning for sustainability and systems thinking for sustainability
3. Systems thinking in practice: learning for sustainability
4. Challenges 2: institutional issues and further research
Systems Thinking in Practice
Postgraduate qualifications from the Open University

2 Core modules part-time study - each with 6 months:

Thinking strategically: systems tools for managing change
*TU811 – 30 credits*

Managing systemic change: inquiry, action and interaction
*TU812 – 30 credits*
World Summit on Sustainable Development (WSSD)

“…a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection - at local, national and global level” (Hens and Nath, 2005 p.386).

Learning for sustainability $\rightarrow$ Systems thinking for sustainability

• *understanding* disciplinary perspectives (economic, social, biophysical)

• *practice* of interdisciplinarity (conversing with disciplinary boundaries) ....???

• *praxis* of transdisciplinarity (learning as action) ....???
Systems Thinking in Practice
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“…a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection - at local, national and global level” (Hens and Nath, 2005 p.386).

Learning for sustainability

- understanding disciplinary perspectives (economic, social, biophysical)
- practice of interdisciplinarity (conversing with disciplinary boundaries)
- praxis of transdisciplinarity (learning as action).

Systems thinking for sustainability

- Epistemic learning: radical constructivism (disciplines not reified)
- Social learning: thinking in practice (pragmatism)
- Design learning: transformational praxis (within anthropocene epoch)
Systems Thinking in Practice
Postgraduate programme

TU811
30 credits
Thinking strategically: systems tools for managing change

TU812
30 credits
Managing systemic change: Inquiry, action and interaction
1. Developing epistemic understanding (epistemic turn)

**TU811**
Thinking strategically

**TU812**
Managing systemic change

Tools from 5 systems approaches Thinking in practice...Bricoleur (bricolage)

Systemic action learning (2nd order cybernetics) ...Juggler (juggling)
Systems Thinking in Practice
Postgraduate qualifications from the Open University

2. Developing active pedagogy (pragmatic turn)

TU811
Thinking strategically

TU812
Managing systemic change

1. Tools stream – 5 systems approaches
2. People stream – online critical reflection in use of tools

In an area of practice chosen by individual students

Reflective practice

Social learning/landscapes of practice
Systems Thinking in Practice
Postgraduate qualifications from the Open University

3. Developing design praxis (design turn)

TU811
Thinking strategically

TU812
Managing systemic change

Assessment based on purposeful project design based on systemic inquiry
Challenges of systems thinking in higher education…Erich Jantsch (1970)!

“[a] systems approach…would consider science, education and innovation, above all, as general instances of purposeful human activity, whose dynamic interactions have come to exert a dominant influence on the development of society and its environments.

“A new policy as well as new structures for the university may be expected to emerge…designed explicitly with a view toward their innate capability for flexible change in accordance with the dynamically evolving situation” (Erich Jantsch, 1970 p.406)*.

Challenges within STiP (TU811 and TU812)

1. Epistemic understanding of systems...ontology vs epistemology

2. Conversation and practice in virtual space...online STiP alumni

3. Institutional validity... HEIs assessment, REF recognition, Employer value

Research inquiry: 18 month exploration of opportunities and constraints of systems thinking in practice for sustainable learning
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