

PedRIO Research/ Teaching Fellowship Award Scheme: Final Report

Name of key contact (project leader): Professor Stephen Sterling

Department: CSF/Teaching and Learning Support

Names of other staff involved: Dr. Paul Warwick, Dr. Wendy Miller.

Also international collaboration with Prof Harold Glasser (Western Michigan University), and Professor Marco Rieckmann (Vechta University).

Title of project: 'More than scaling-up': Sustainability contexts, competencies, and consequences - a critical inquiry

Type of project: Development. This was conceived as a pilot project with a view to wider international involvement later in the year. Plans are now in hand to take the project to another phase (extent partially dependent on funds). Interest now from Germany, USA (original collaborating institutions) and Australia.

Keywords: Sustainability competencies, systems thinking, organisational learning, organisational change, education for sustainable development, global challenges, UNESCO Global Action Programme

Aims of project:

*To identify and problematise the key issues characterising the relationship between global sustainability contexts and the limited response of HE to date - with the purpose of unlocking the potential for innovative, replicable efforts to develop **sustainability competencies** through innovation in curriculum policy and practice, through addressing these sub-aims:*

- How far does HE policy accommodate and reflect the need for sustainability competencies? How can capacity for teaching for competency be built and supported through new policies?
- How can curricula and pedagogy be better aligned to facilitate the building of sustainability competency in learners and teachers?
- What effect and influence does education for sustainability competency have in terms of facilitating transformative social learning, supporting systems structure change, and cultivating informed responsibility (in terms of policy and everyday decision making)?

Background/context to project:

The close of the first UN Decade of Education for Sustainable Development (DESD) (2014), the introduction of UNESCO's Global Action Programme (GAP) (2014) and the launch of the UN Sustainable Development Goals (SDGs) in 2015 have brought calls for expanding the role of learning and formal education. The GAP emphasizes the significance of creating new future-focused education policies, whole institution approaches, strengthening the capacity of educators and trainers, and accelerating the creation of sustainable development solutions.

In this context, there has been a corresponding rapid growth in the global literature on education for sustainable development (ESD) and learning for *sustainability competencies* - but otherwise a limited response by HE to the global challenges. Literature reviews indicate that questions of what

constitute core sustainability competencies, their implications for curriculum design, for pedagogy, and for education policy remain.

Methods used:

This is a developmental research project, carried out in liaison with colleagues at Western Michigan University, and Vechta University (Germany). These two universities have carried out parallel work (which continues), and the Plymouth project has been in frequent contact, including visits from both collaborating universities.

Literature review based at Plymouth. Liaison with collaborating universities: Vetchta University as key player in international literature review relating to sustainability competences, and with Western Michigan University as a key player on competencies in the USA.

Two workshops held at PU in May 2016 on competencies and focussing particularly on Systems Thinking (this relates directly to the Plymouth Compass), and organisation change that facilitates competencies. Appreciative Inquiry methods employed. Interviews held with participants, and analysis carried out. The project was unavoidably delayed through RA off on sick leave, but good progress made to date.

Results:

This is largely a development project, which we are seeking to continue. To date we have one chapter (in press), and two international conference presentations achieved.

Associated publications (include details of intended/draft publications):

Stephen Sterling, Harold Glasser, Marco Rieckmann, Paul Warwick, 'More than scaling up': A critical and practical inquiry into operationalising sustainability competencies in Corcoran, P., Wals, A., and Weakland, J. (in press), *Envisioning Futures for Environmental and Sustainability Education*, Wageningen Academic Press, Wageningen.

Further publication planned based on transcripts of interviews following workshops held in May '16.

Dissemination:

Sterling, S and Marco Rieckmann (2016), 'More Than Scaling Up': A Critical and Practical Inquiry into Operationalising Sustainability Competencies, European Conference on Educational Research (ECER), Dublin, 25 August.

Paul Warwick, 'More Than Scaling Up': A Critical and Practical Inquiry into Operationalising Sustainability Competencies, Sustainability in HE conference, Canterbury Christchurch University, July.

Stephen Sterling, and Harold Glasser (Western Michigan University) "More Than Scaling Up": A Critical and Practical Inquiry into Operationalizing Sustainability Competencies, World Symposium on Sustainable Development at Universities (WSSD-U), MIT, Boston, September 14-16.