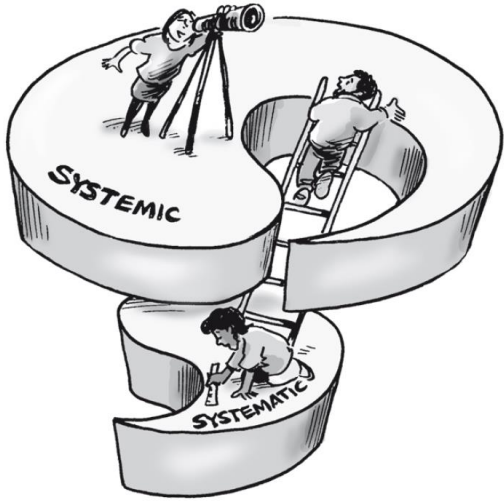


Embedding sustainability through systems thinking and practice – some experiences from the Open University

Chris Blackmore, Martin Reynolds, Ray Ison and Andy Lane

A couple of influences

- *Learning cannot be designed…Learning happens, design or no design. And yet there are few more urgent tasks than to design social infrastructures that foster learning.* (Wenger, 1998 p225)
- *I do not think it too much to hope that an understanding of systemic relations may bring us a better understanding of our limitations and even our possibilities.* (Vickers 1978, p.81)

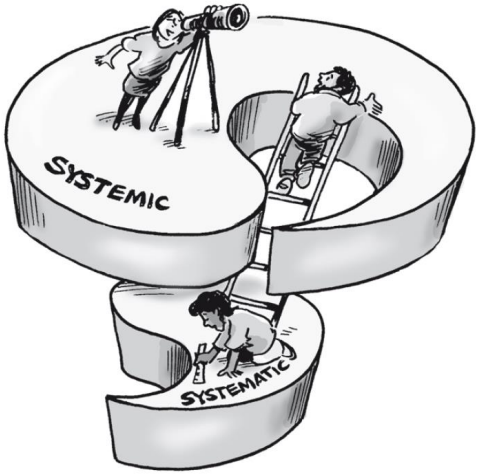
Open university experiences

- Mission: open to people, places, methods and ideas
- *Supported* open learning
- UK's largest university, more than 260,000 students.
- 92% overall satisfaction (National Student Survey 2013).
- Students from more than 130 countries
- More than 70% OU students both work and study
- OU - predominantly a part-time provider
- OU - historically a module-based provider now focusing on offering coherent and supported routes to qualifications – including certificates, diplomas and degrees

ESD/EfS @ the OU

- Contemporary curricula –
  undergraduate, postgraduate and MOOCs; E&D quals, elements of ESD integrated in other quals
- Commitment to international development
  In the global South - education of teachers (e.g. sub-Saharan Africa, Bangladesh) ; improving health provision (e.g. Ethiopia); boosting educational leadership; strengthening higher education systems.
- Design of sustainable higher education teaching models
  e.g. reducing environmental impacts through online delivery

Systems Thinking and Practice postgraduate qualifications.

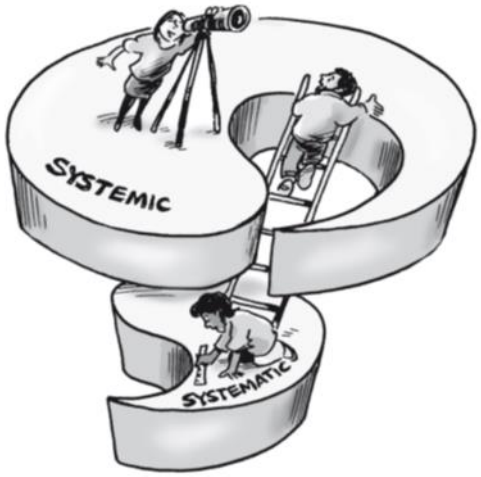


Built on 40 years' experience of systems teaching and research at the Open University

Open learning, distance taught & designed to:

- develop students' abilities to tackle complex messy situations,
- provide skills to think more holistically
- work more collaboratively to avoid systemic failures

STiP modules



- Thinking strategically: systems tools for managing change (TU811 – 30 credits)
- Managing systemic change: inquiry, action and interaction (TU812 – 30 credits)
- The MSc professional project (T847 - -30 credits)

or

- Research project (T802 – 60 credits)

For STiP MSc these are combined with a range of optional modules (60 – 90 credits)

STiP modules are also options in Environmental Management and Development Management and other qualifications

How many students?

Year	TU811	TU812	Total
2010	91	107	**198**
2011	134	83	**217**
2012	111	78	**189**
2013	110	97	**207**
Total	**446**	**365**	**811**

Data on students registering on STiP core module presentations (TU811 and TU 812) 2010–2013[1]

[1

Where are students from?

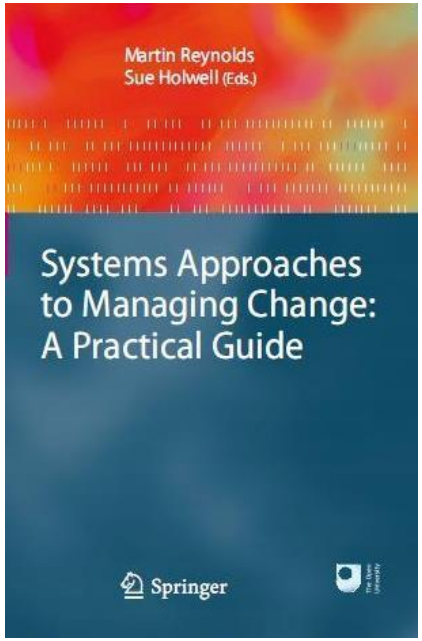
Module	**Presentation**	**Non-UK%**	***EU***	***Ireland***	***Outside EU***
TU811	2011	31%	18%	3%	9%
TU811	2012	28%	11%	5%	12%
TU812	2011	40%	28%	4%	8%
TU812	2012	18%	15%	n/a	1%

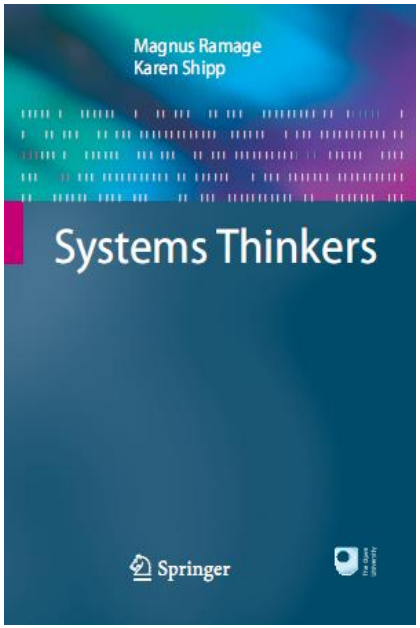
TU811

30 credits

Thinking strategically:

systems tools for managing change

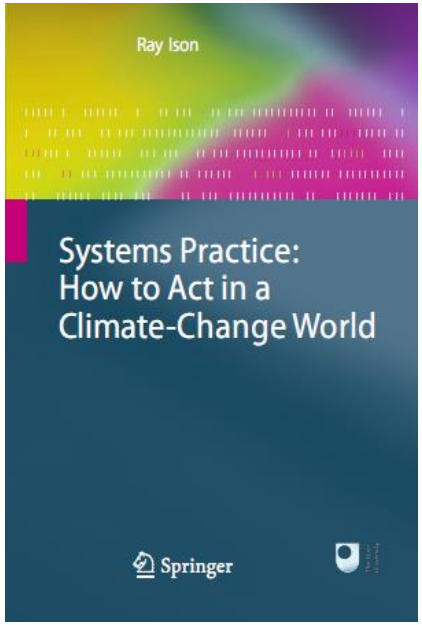


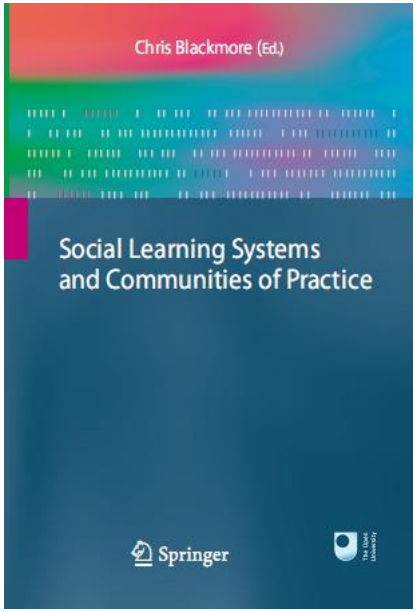


Systems Thinking in Practice

Postgraduate programme

Masters/ Diploma/ Certificate





Managing systemic change:

Inquiry, action and interaction

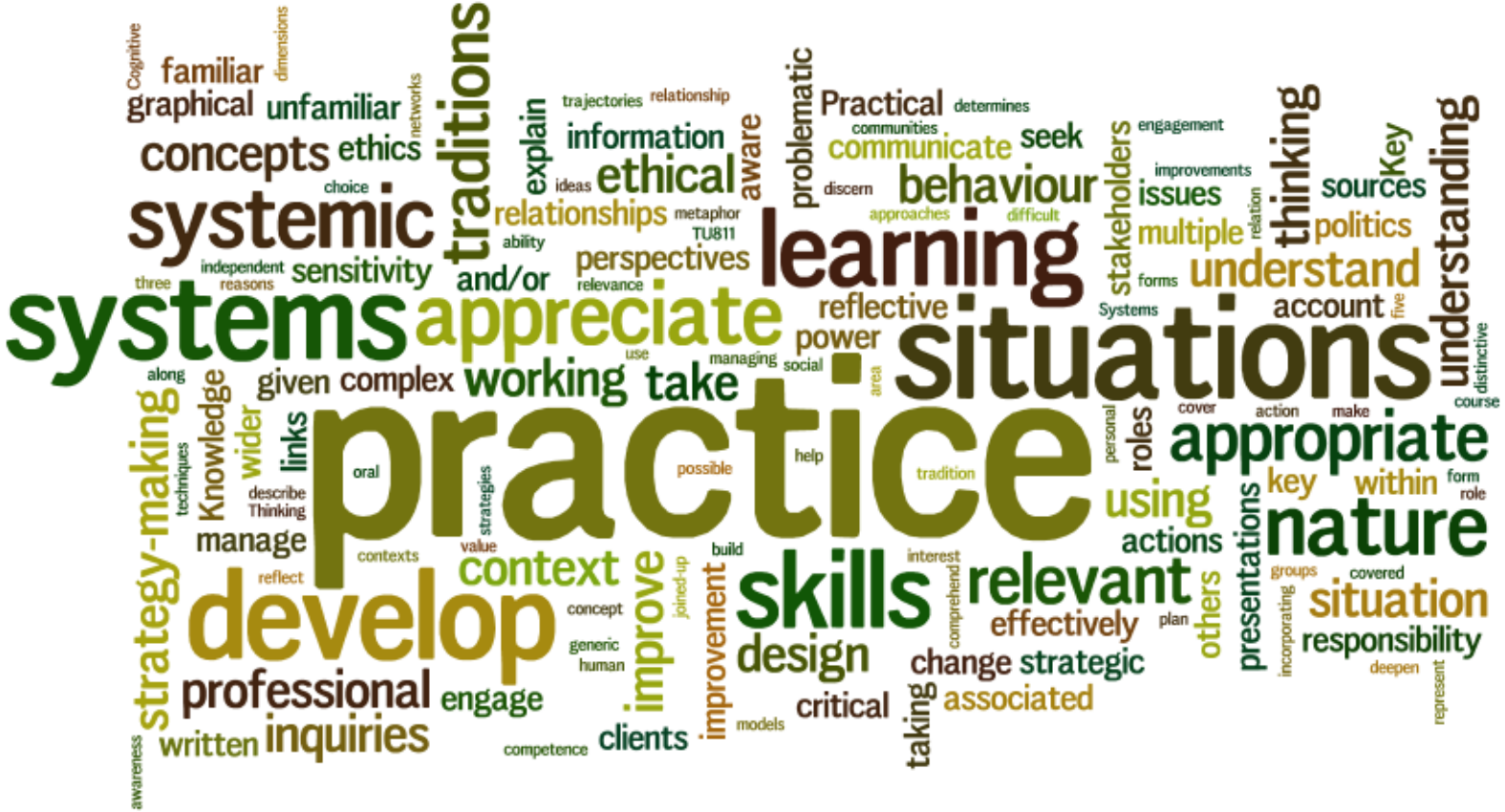
TU812

30 credits

Additional book & chapter purchases

Title	**Total 2010 – 2013**	
	Books	**Chapters**
Systems Thinkers (ST) (Ramage and Ship, 2009)	**1437**	**10903**
Systems Approaches (SA) (Reynolds and Holwell, 2010)	**1022**	**4195**
Systems Practice (SP) (Ison, 2010)	**477**	**1474**
Social Learning Systems (SLS) (Blackmore, 2010)	**465**	**4107**
TOTAL	**3401**	**20,679**

Learning outcomes

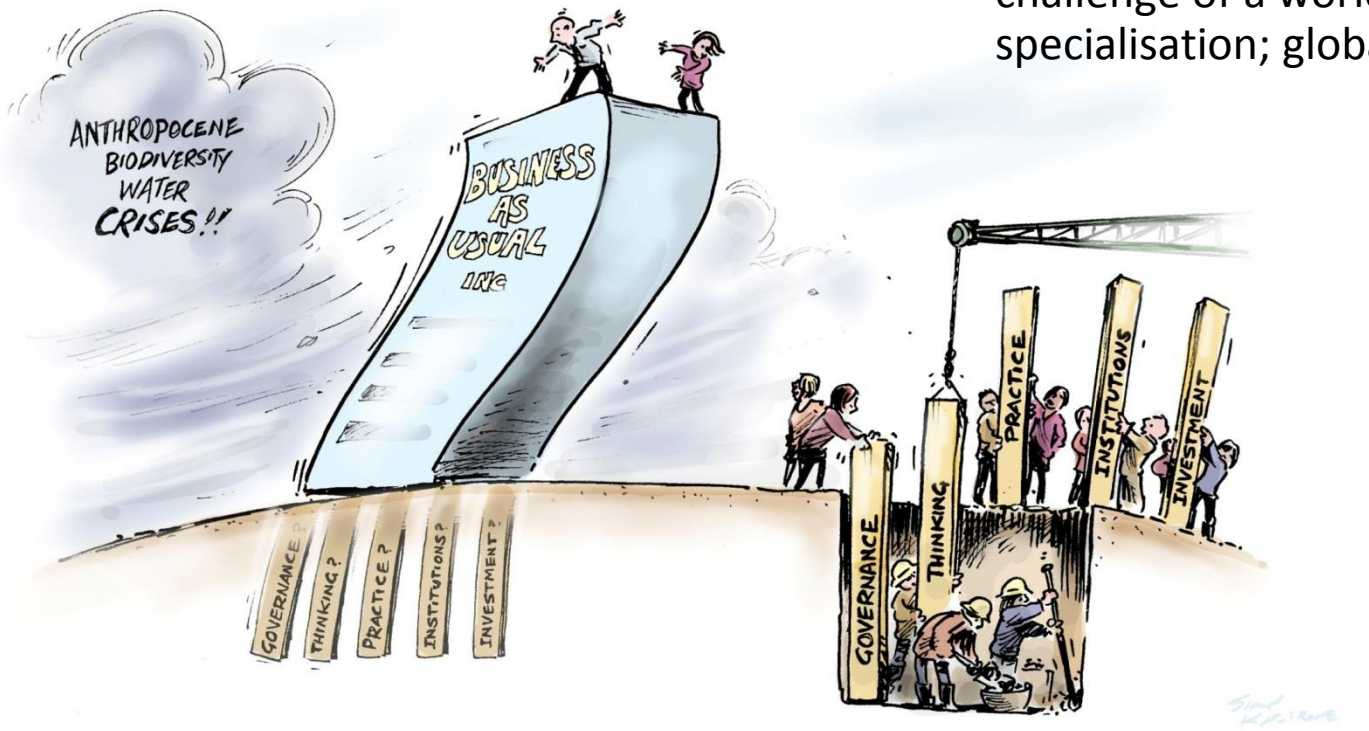


3 significant challenges in HE that hinder systems thinking for sustainability

- entrenchment of existing disciplinary boundaries
- pedagogic traditions that fail to engage learners' existing work experiences
- institutional assessment strategies based on summative as against more formative or developmental evaluation

What is the (challenge) setting for the Future Workforce .....?

- climate impacts on business, ageing workforce, economic or political volatility, technology impacts, demographics (including transport/living/working/gender), complexity, increased workforce mobility, challenge of a world of increased specialisation; globalisation

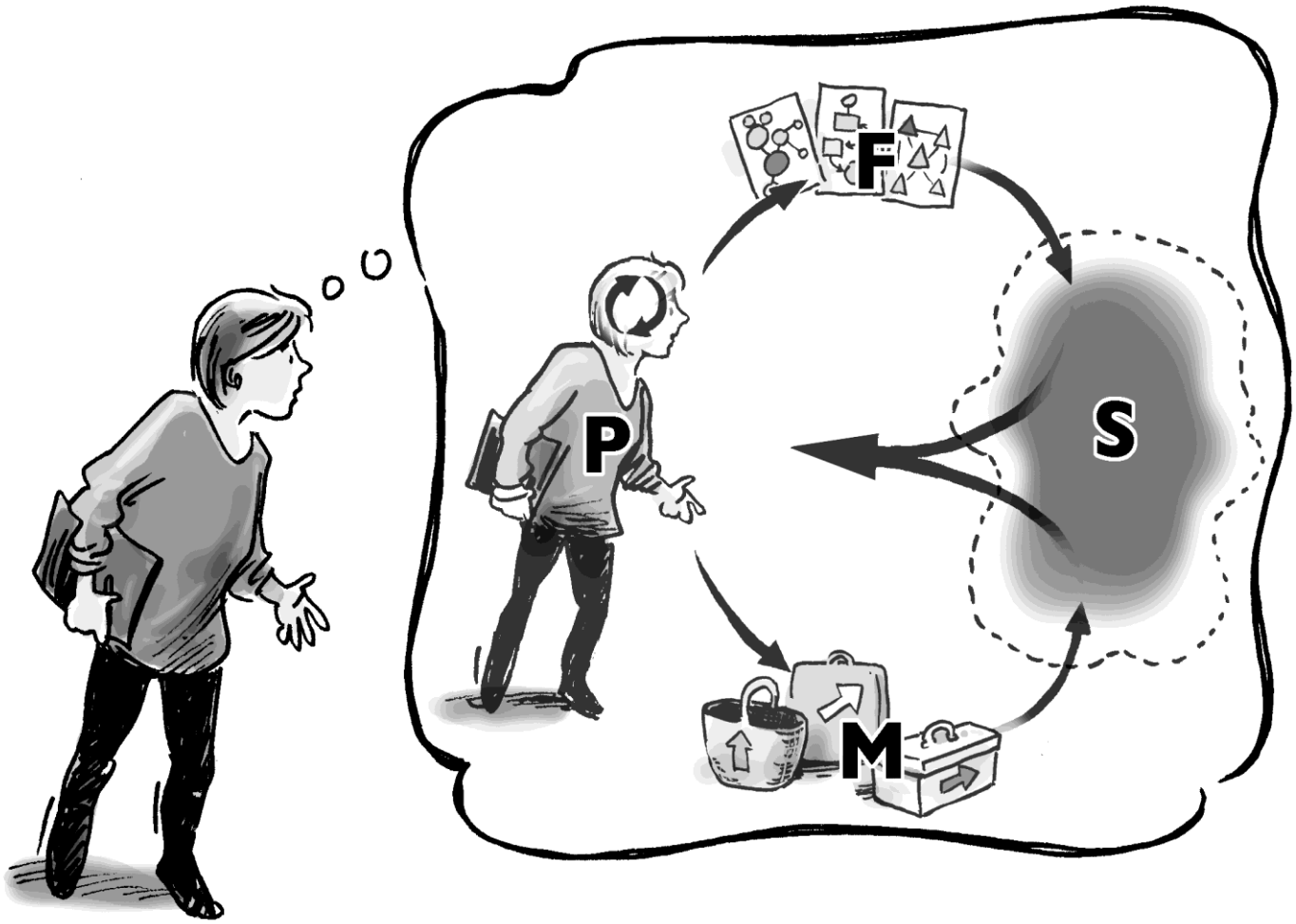


- Governance
- Thinking
- Practice
- Institutions
- Investment

3 key features of STiP core modules

- Epistemic understanding,
- Active pedagogy
- Design praxis.

These attributes aim to complement rather than replace existing skill-sets amongst professionals from different sectors working in the field of sustainable development.

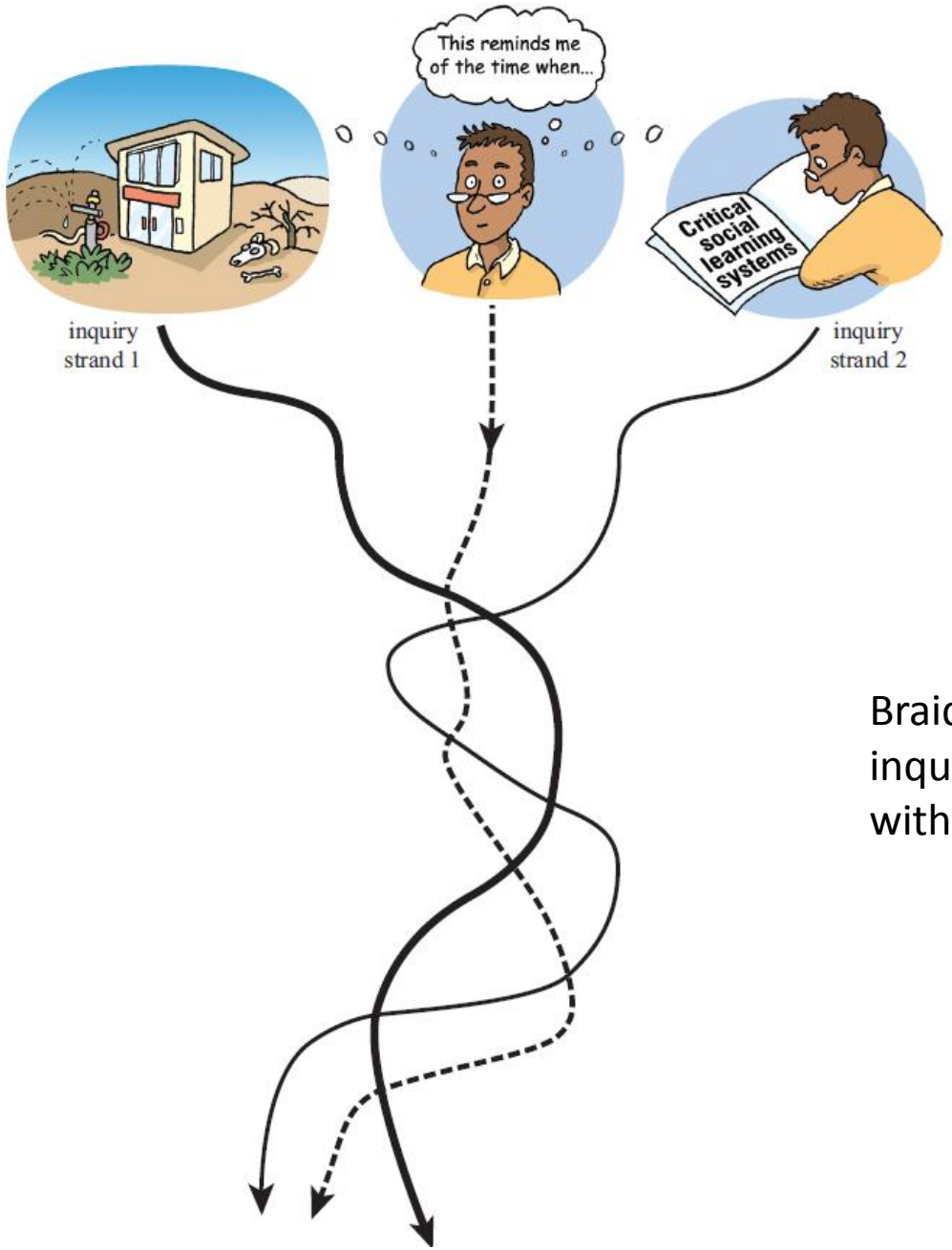


P = practitioner

F = framework of ideas/theory

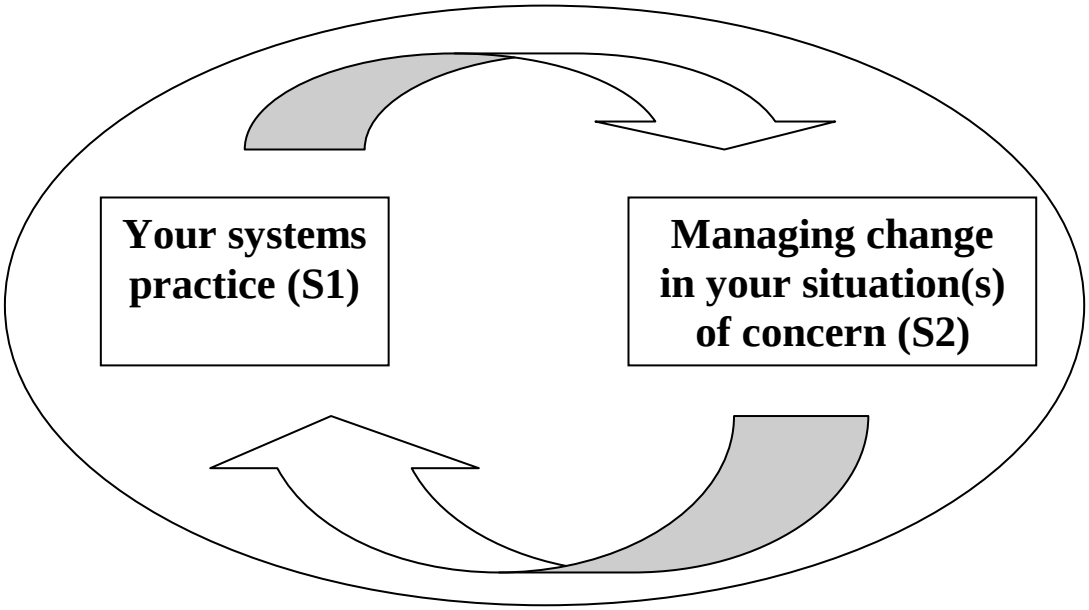
S = situation

M = method or methodology



Braiding strands of inquiry and linking with your experience

A virtuous cycle of inquiry



What kinds of situations …?

The Understandascope *by Michael Leunig*

Examples from our students

- Bailey, A. (2014) Once the Capacity Development Initiative is Over: Using Communities of Practice Theory to Transform Individual into Social Learning. *Journal of Agricultural Education and Extension*.
- Wilding, H. (2012) Systems thinking in partnership working for wellbeing and health practice in an English city: absent competence or constrained capability?
- David T. Robinson, (2013),"Introducing managers to the VSM using a personal VSM", *Kybernetes*

Systems Thinking in Practice Alumni Gathering

Open University, Camden
30 May 2014

"One of the best systems events I have attended. Fabulous group of people and some great insights. Really hope this is the first of many." **Ivan**

"I realised what a powerful community of practitioners we are - and how proud I am to be part of it." ***Helen***

"Really enjoyed the meet-up - interesting people, challenging discussions about big issues and engaging activities in the workshop. It's all SO relevant, generates SO many ideas, and a great set of reminders of systems practices.

I thoroughly enjoyed the day and look forward to the possibility of attending similar events in the future." ***Sharon***

"So thanks to all the organisers for making the event happen, thanks to all the practitioners for participating, challenging and making the event worthwhile, and thanks to Ray for explaining the Design Turn in language that I now understand!" ***John***

STiP community initiatives

- Self-organising LinkedIn on-line community of over 400 STiP alumni.
- eSTEeM project 2013-2015 :Post-graduate student recruitment and retention: design criteria for a learning system based on community of practice
  building and employer engagement
- Critical reflection on STiP & ESD/EfS