Larging it

Implementing interdisciplinarity, a progress report from the University of Sheffield: what have we learned?

Claire Allam
Interdisciplinary Conference, Milton Keynes 10 April 2017

- Transition tool for students

- Definitions of interdisciplinarity

- Unforeseen Benefits

Main themes

Achieve More

"Achieve More will broaden your horizon and your experience of people and life, and this can only prepare you more completely for living and working in the wider world when you leave university".

Achieve More is your opportunity to go beyond your degree.

http://www.sheffield.ac.uk/undergraduate/why/achieve-more

Scope & scale
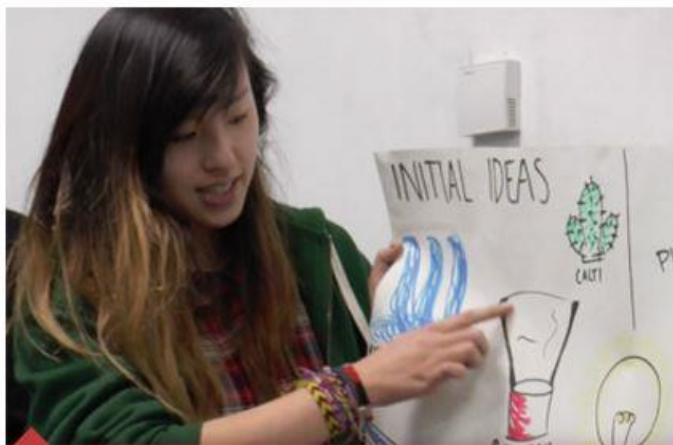
First Year Students

Join students from other disciplines within your Faculty to encounter new perspectives on a range of local and global issues.

Discover what your faculty has in store →

Second Year Students

Come together with students from all five Faculties to explore the problems and possibilities that will arise as the world population rises to 10 billion.

About 10 Billion →

Final Year Students

Communicate your knowledge and ideas to non-specialists, both from within the University and beyond.

Discover More →

Vertical integration

State of Sheffield 2015

Outline of the State of Sheffield Challenge

5pm at Octagon Centre
choose a topic
26/27 Nov

Take on a Challenge! Your tasks...

Guest Speakers on the Sheffield context

challenge week begins
Monday 2 Feb

10am at Sheffield City Hall

Get to know your group & your facilitator

Off to your project base rooms

project planning
Monday 2 Feb

Find out about research skills

info gathering & research
Tuesday 3 Feb

Arts Tower, base rooms

Base room, in the city, skills training rooms

project work
Wednesday 4 Feb

Go on a site visit. Do research

Get creative! Learn new skills

produce an artefact
Thursday 5 Feb

Base room, skills support rooms

Base rooms, Arts Tower

present & exhibit
Friday 9 Feb

Share your project. Vote for your favourite

Think about what you've learned

reflect & evaluate
Moving on

After the Challenge week

State of Sheffield 2015

"collaborative/cooperative learning, discovery and problem-based learning … and methods of assessment that are multi-dimensional, including qualitative and quantitative measures, normed measures, and self-assessments." (de Zure, 1999)

State of Sheffield 2015
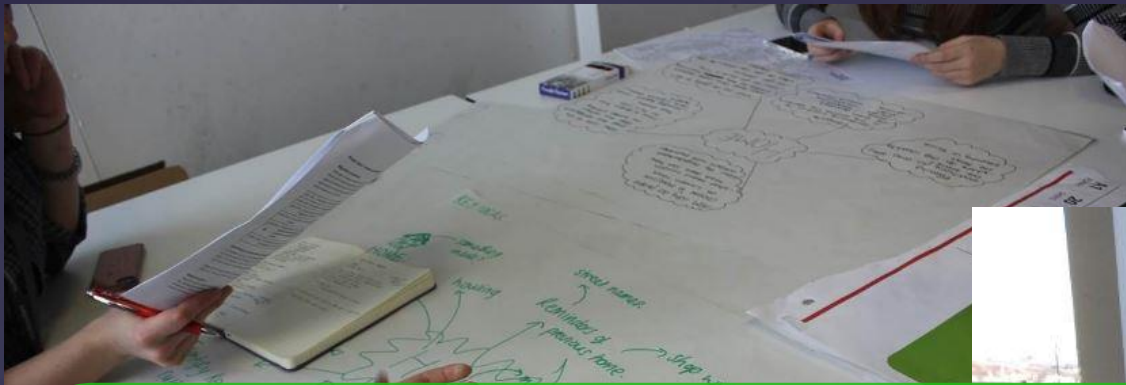
"Interdisciplinary groups are great - seeing the different skills everyone brings and putting these together was a highlight of the week."
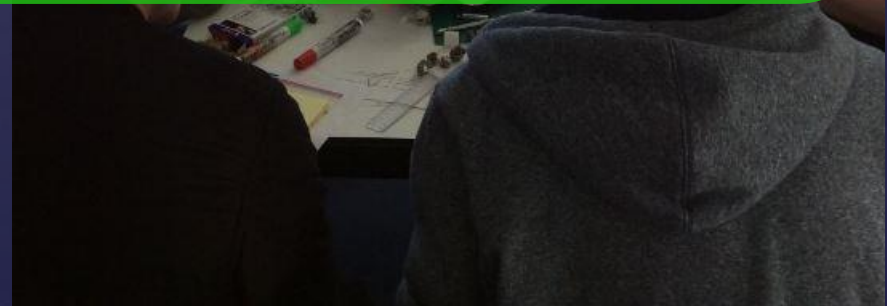
Original emphasis - Group work

"I enjoyed creating a video and was pleased to find out that I can borrow cameras from the Diamond and use the editing suites."

"• self-directed learning: non-prescribed learning – no road maps; inventions, integrated with one's values, skills, life experience, e.g. inquiry-based learning

• creative learning: inventive learning – divergent thinking, exploration, discovery

• feeling learning: vulnerable learning – making mistakes, trying out, acknowledging limits of competence"
(Gabelnick. 2002)

Original emphasis - Product
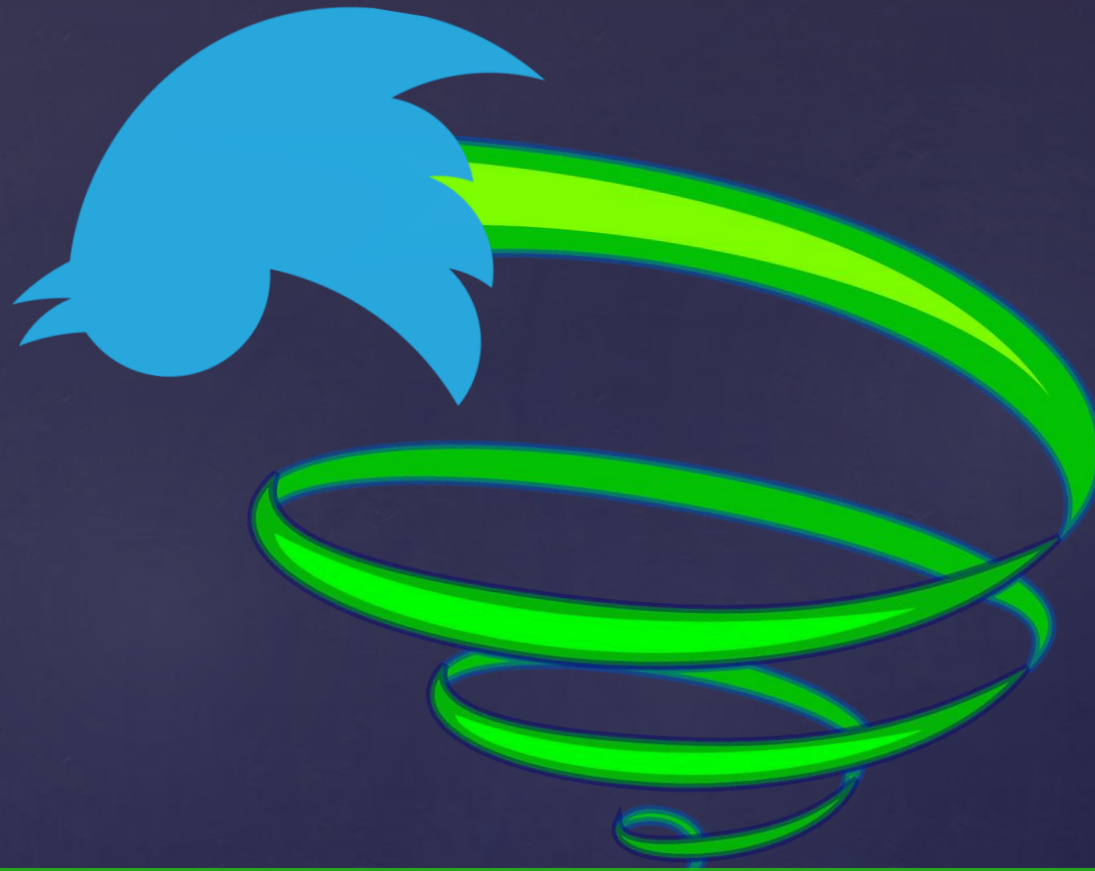
"The step from an appealing idea to an operational method is large indeed." (Karlqvist, 1999)

Highs and Lows

'A challenging module for challenging times'

The State of Sheffield

Global Perspectives on Local Issues

Module Introduction 2016-17

Week 15 Semester 1

30 January-2 February 2017

Achieve More.

Faculty of Social Sciences
The State of Sheffield

Evolution

Research project (Learning)

Individual input (Attributes)

Alumni participation (Skills)

Current emphasis

Some site visits from 2016:

Abbeydale Road

Park Hill Flats

A tour of Sheffield via Bus Routes 52 and 83a

Sheffield General Cemetery

Endcliffe Park

Castlegate

"Getting to use research methods in a way that actually contributes to something, getting the independence to go into the streets and apply them".

Community engagement

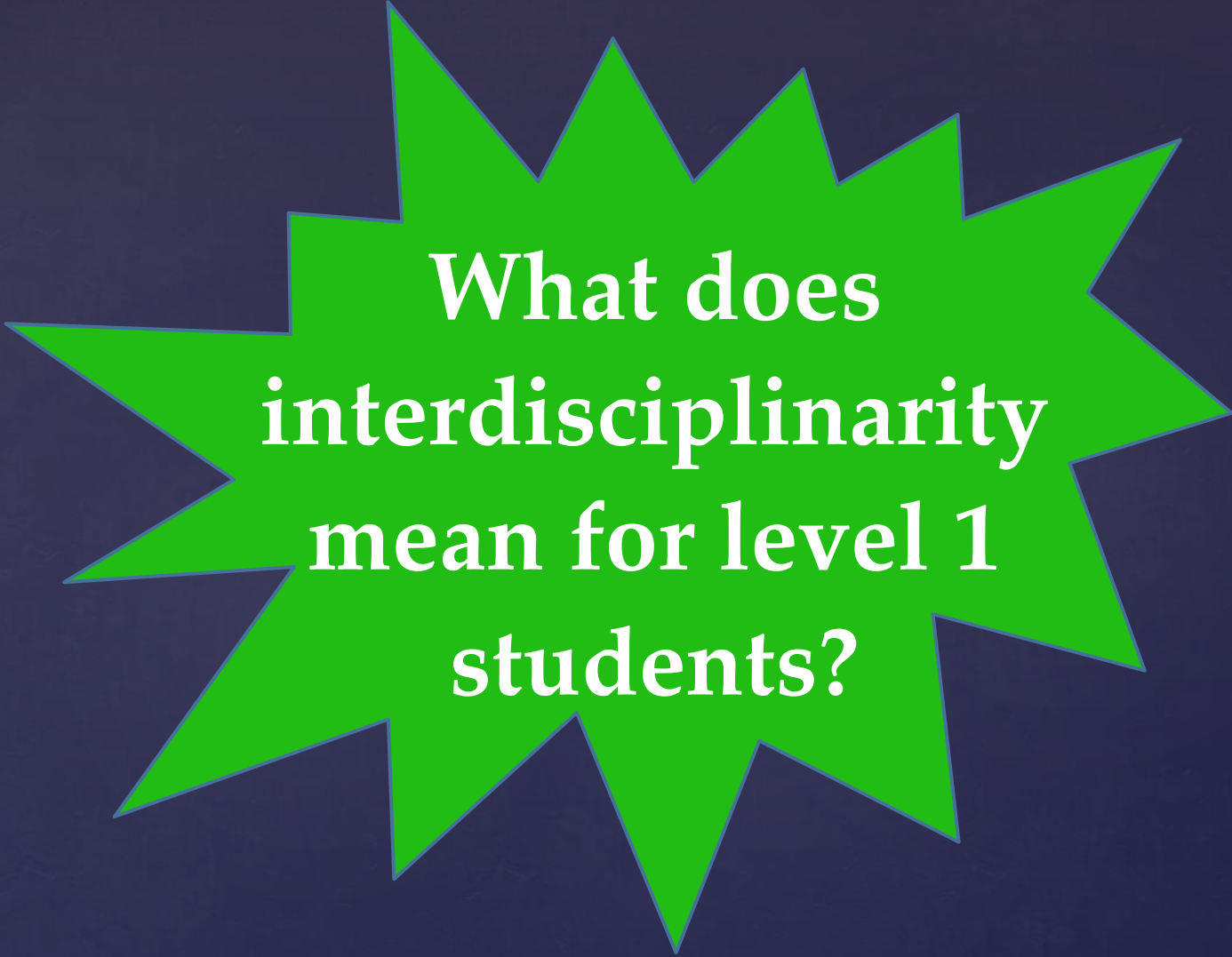Models 'best practice' UG student approaches

- Skills development
  - where/how to access
- Promotes Sheffield Graduate Attributes
  - eg civic engagement
- Promotes independent learning and introduces research methods

A transition tool

What does interdisciplinarity mean for level 1 students?

"The mere presence of individuals from different disciplines does not signify interdisciplinary collaboration." Chettiparamb (2007)

"I enjoyed meeting a new group of people who think very differently to myself."

"I enjoyed working with students from different departments and providing a creative twist to an academic research question."

...re interests that ...g more ...ho I

probably wouldn't have crossed paths with otherwise."

Level 1 perceptions

"To see the whole is to see it in breadth, but without access to the particular vision: to see the part is to see it in depth, but in the absence of the general overview." Becher (1989)

"I had a great conversation with a fellow student at the session and it was interesting to hear his opinions and how they differed to mine due to the fact that the courses we are studying were really quite different. This opened my eyes to the importance of interdisciplinary {learning}."
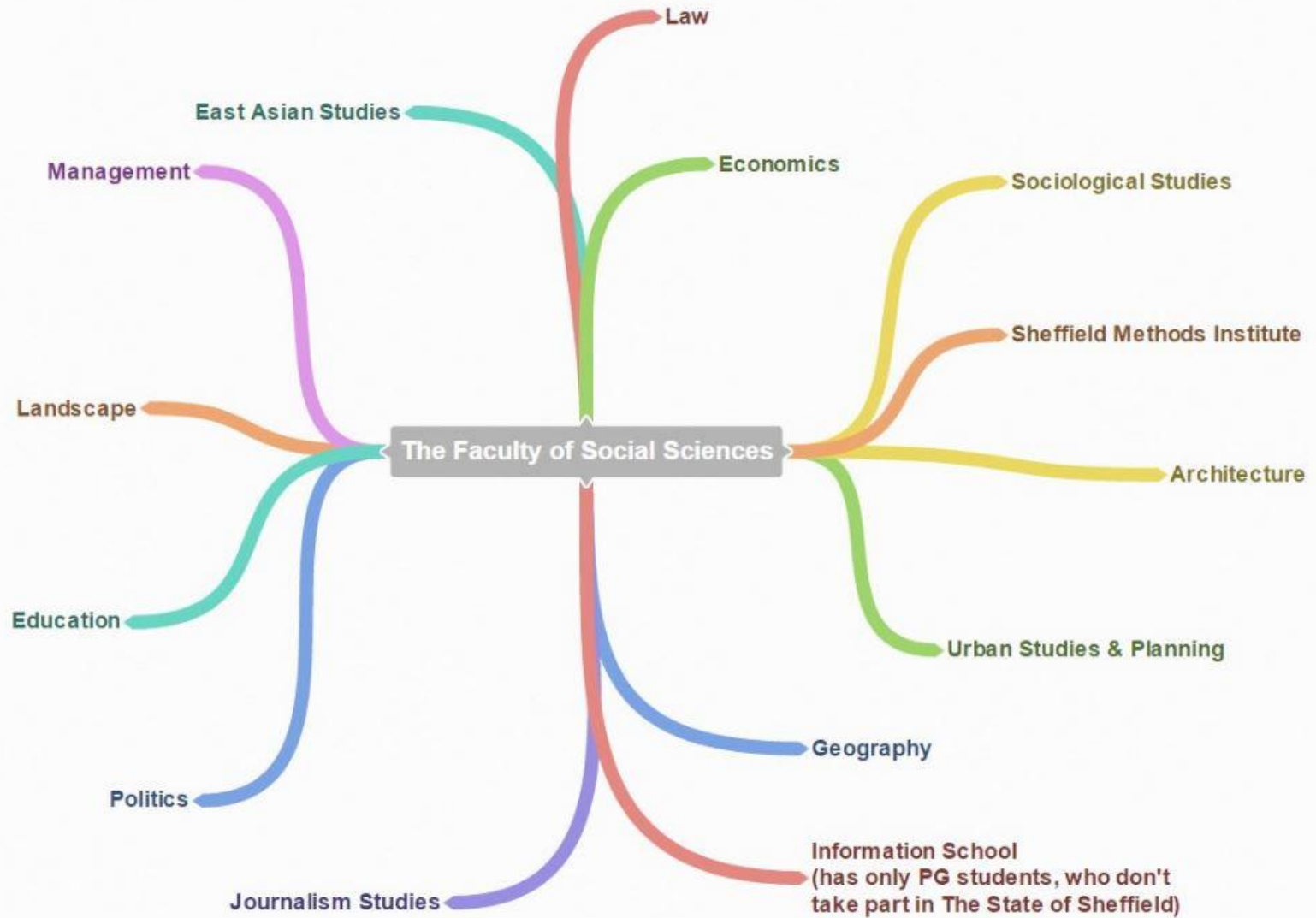
Level 2

ॐ Staff

ॐ Facilitators

ॐ Students

Unforeseen benefits

Unforeseen benefits

- Enthusing students about their discipline
- Expands their network (colleagues and community)
- Learning from students' research
- Opportunity to try different teaching techniques
- … And use elsewhere

Unforeseen benefits – for staff

Unforeseen benefits - facilitators

- Teaching experience
- Dealing with lack of engagement
- Transferable skills
- CV building – work experience
- Broadens network (academics/facilitators)
- Interdisciplinarity has influenced direction of own PhD studies
- New types of research skills
- Creativity and freedom!

Unforeseen benefits

"Facilitators were friendly, open and willing to discuss and share their knowledge and it opened my mind."
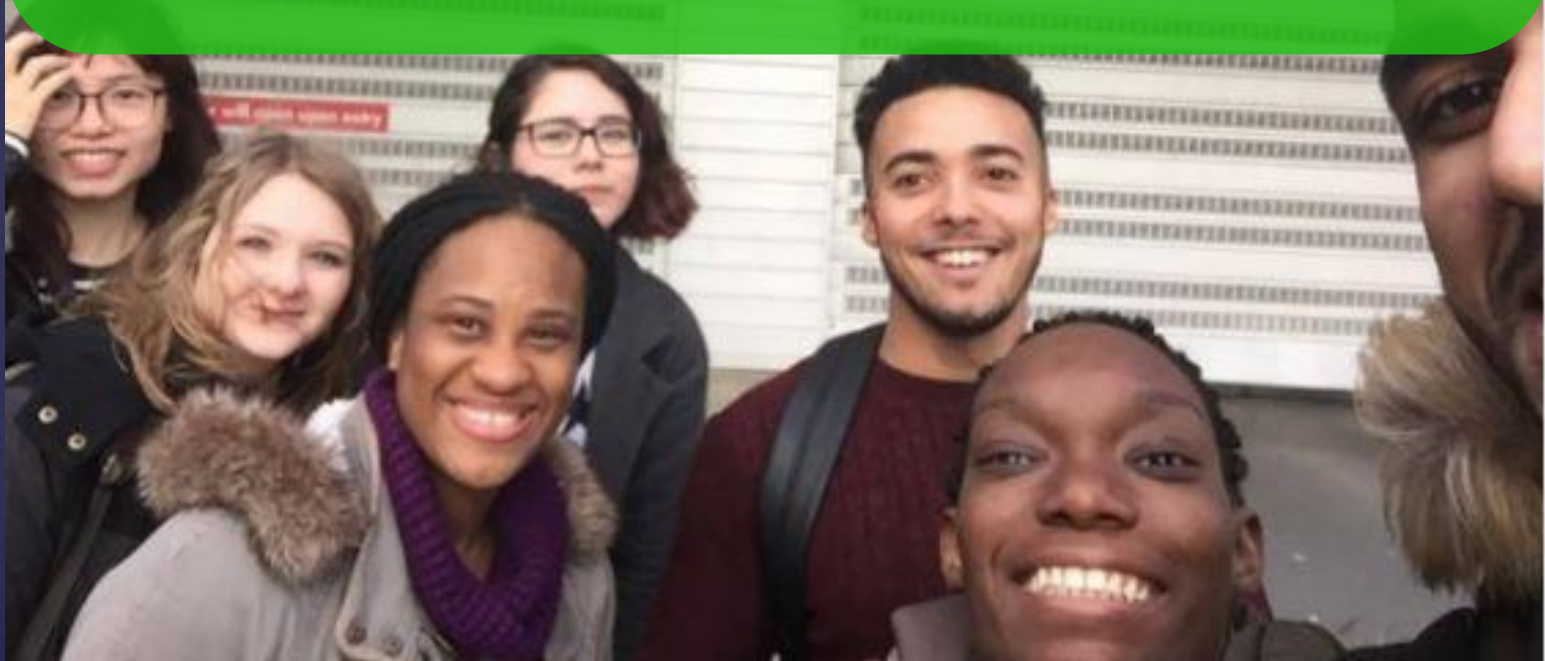
Unforeseen benefits - verticality

❧Transition tool for students ✔

❧Interdisciplinary definitions ✔

❧Unforeseen Benefits ✔

Conclusion

"1. Creativity often requires interdisciplinary knowledge.
2. Immigrants often make important contributions to their new field.
5. Many intellectual, social, and practical problems require interdisciplinary approaches.
7. Interdisciplinarians enjoy greater flexibility in their research.
9. Interdisciplinarians may help breach communication gaps in the modem academy, thereby helping to mobilize its enormous intellectual resources in the cause of greater social rationality and justice. (Nissani, 1997)

Conclusion

Current team
- Andy Clayden
- Julia Bishop
- Beci Oldfield
- Laura Hogg

Original team
- Andy Clayden
- Claire Allam
- Cristina Molina-Hall
- Chris Maidment - Student
- Sian Parkinson - Student

Acknowledgements and thanks

- Becher, T. (1989) Academic Tribes and Territories: Intellectual Enquiry and the Cultures of Disciplines. Milton Keynes: The Society for Research into Higher Education and Open University Press

- Boland, J.A., 2014. Orientations to civic engagement: insights into the sustainability of a challenging pedagogy. *Studies in Higher Education, 39*(1), pp.180-195

- Chettiparamb, A., 2007. Interdisciplinarity: a literature review. *Report, Interdisciplinary Teaching and Learning Group*

- DeZure, D., 1999. Interdisciplinary teaching and learning. *Teaching excellence: toward the best in the academy, 10*(3), pp.1-2

- Gabelnick, F. (2002) Conclusion: Achieving Interdisciplinary Innovation: Leading and Learning in Community. In Haynes, C. (ed.) Innovations in Interdisciplinary Teaching. Washington: American Council on Education / Oryx Press, pp.275-290

References

Harland, T., 2003. Vygotsky's zone of proximal development and problem-based learning: Linking a theoretical concept with practice through action research. *Teaching in higher education, 8(2),* pp.263-272

Healey, M., 2012. Students as producers and change agents. In *Plenary session presented at the Meeting of the International Society for the Study of Teaching and Learning. Ontario, Canada*

Karlqvist, A. (1999) Going Beyond Disciplines: The Meanings of Interdisciplinarity. Policy Sciences. 32 (4), 379-383

Klein, J. T. (2000) A Conceptual Vocabulary of Interdisciplinary Science. In Weingart, P. and Stehr, N. (eds) Practising

Lyall, C., Meagher, L., Bandola, J. and Kettle, A., 2015 Interdisciplinary provision in higher education

Nissani, M. (1997) Ten Cheers for Interdisciplinarity: The Case for Interdisciplinary Knowledge and Research. The Social Science Journal. 34 (2), 201-216

Sternberg, R.J., 1999. *Handbook of creativity*. Cambridge University Press