



Learning to be an interdisciplinary researcher through experiential group projects

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Challenge-Led Social Research



“Excellent social science needs people with the skills, curiosity and creativity to be truly innovative. It also requires people with the ability to work in interdisciplinary teams and to communicate research ideas and findings clearly. We are committed to working with research organisations to develop the next generation of social scientists, to ensure they are equipped to undertake high-quality analytical work, handle different forms of data and collaborate with others.”

(ESRC, 2015, p. 2).

ESRC-aligned pre-doctoral training

Autumn	Spring	Summer
Research design	Professional and transferable skills	Working beyond disciplines
Quantitative methods	Optional module	
Qualitative methods	Optional module	Dissertation



“raise the general level of skills and knowledge amongst social scientists by ensuring that they develop, and can apply, basic and advanced quantitative and qualitative research skills that are responsive to the needs of social science subject areas and disciplines, the broader science base and a wide range of users”

(ESRC, 2015, p. 7).

Working beyond disciplines

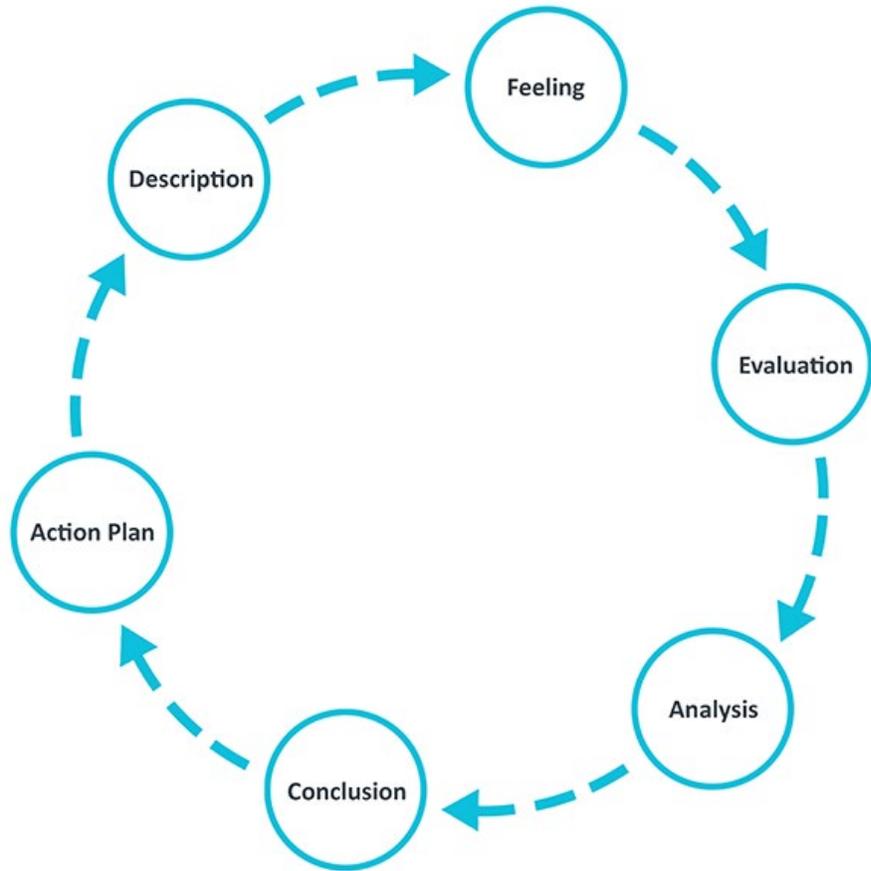
Aims

- Provide students with an introduction to interdisciplinary study and the increasing significance of research that crosses disciplinary boundaries in today's society.
- Highlight the approaches and practices through which interdisciplinary research can be achieved
- Engage students in debates and discussions in relation to grand challenges in social sciences
- Provide students will the opportunity to reflect on the role of interdisciplinary practice in the context of their own research

Learning outcomes

- Demonstrate an understanding of the variety of approaches to interdisciplinary study alongside their theoretical and epistemological foundations
- Critically evaluate the practical and methodological aspects of interdisciplinary research
- Demonstrate an understanding of subject-specific and interdisciplinary debates to enable them to identify research challenges at the frontier of their field of specialist interest
- Apply their understanding of interdisciplinary research to inform the development of their own research projects.
- Communicate effectively to colleagues the role of interdisciplinarity in the context of their own research

Experiential and reflective



Gibbs (1988) cited in [Reflection toolkit](#)



“We do not learn from experience ... we learn from reflecting on experience”

John Dewey

Assessment

Formative – Group presentation

Your presentation should include:

- A summary of your research proposal covering its rationale, research questions, and research strategy, including how different disciplinary perspectives (i.e. theories and methods) will be integrated
- A reflection on (1) The benefits of working in an interdisciplinary team to develop your research proposal, (2) The challenges you faced working in your interdisciplinary team, and (3) The personal impact of the experience on your knowledge, skills and approach to research

Summative – Individual reflection

You will write a 2000 word self-reflection which:

- Introduces the focus of your research interests
- Outlines your preferred (disciplinary) approach and its underlying philosophical position which underpins it
- Identifies the societal challenge to which your research interests relate
- Outlines and evaluates the different disciplinary perspectives from which that challenge has been explored
- Reflects on the impact of exploring alternative approaches to researching that societal challenge on your philosophical position and planned approach

Format

Week	Topic and learning outcomes	Group project
2	Foundations of interdisciplinary research Lecture: Introducing interdisciplinary research Lecture: What is a discipline? Activity: Disciplinary stereotypes Activity: Your worldview	Reviewing the literature Activity: Exploring grand challenges Activity: Disciplinary perspectives from the literature
3	Interdisciplinarity and mixed methods research Lecture: Approaches to interdisciplinary research Lecture: Mixed methods research	Developing research questions Activity: Disciplinary perspectives from the literature Activity: Developing your research questions
4	Interdisciplinarity and the (in)compatibility of disciplines Lecture: Research paradigms Activity: The (in)compatibility of disciplines	Developing a research design Activity: Further disciplinary perspectives from the literature Activity: Developing a research design

Topics in interdisciplinary research



- Foundations of interdisciplinary research
- Interdisciplinary and mixed methods research
- Interdisciplinarity and the incompatibility of disciplines
- Benefits, challenges and the personal impact of interdisciplinary work
- Preparing a presentation
- Preparing individual reflections
- Interdisciplinary toolkit and careers

Six Thinking Hats®

Quick Summary

PROCESS



Blue Hat - Process

Thinking about thinking.
What thinking is needed?
Organizing the thinking.
Planning for action.

FACTS



White Hat - Facts

Information and data.
Neutral and objective.
What do I know?
What do I need to find out?
How will I get the information I need?

FEELINGS



Red Hat - Feelings

Intuition, hunches, gut instinct.
My feelings right now.
Feelings can change.
No reasons are given.

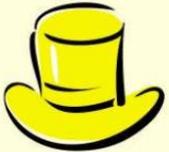
CREATIVITY



Green Hat - Creativity

Ideas, alternatives, possibilities.
Provocations - "PO".
Solutions to black hat problems.

BENEFITS



Yellow Hat - Benefits

Positives, plus points.
Logical reasons are given.
Why an idea is useful.

CAUTIONS



Black Hat - Cautions

Difficulties, weaknesses, dangers.
Logical reasons are given.
Spotting the risks.

Group projects

- Reviewing the literature
- Developing research questions
- Developing a research design
- Reflecting on the experience
- Preparing the presentation

De Bono's (1985) Six Thinking Hats

Invited talks



White Rose
Social Sciences DTP



Economic
and Social
Research Council

White Rose Social Sciences Doctoral Training Partnership Pathways

- Cities, Environment and Liveability
- Civil Society, Development and Democracy
- Data Communication and New Technologies
- Education, Childhood and Youth
- Security, Conflict and Justice
- Sustainable Growth, Management and Economic Productivity
- Wellbeing, Health and Communities

Attainment

Work of **Distinction (70-100)** standard will:

- Clearly articulate how your research questions have been explored from your disciplinary perspective and the **philosophical position** which underpins that approach
- Explain how your research questions relate to a grand societal challenge
- Clearly delineate **a number of different disciplinary perspectives** from which your topic has been explored, highlighting not only the different questions addressed and method employed but also the extent to which the disciplinary perspective differ in terms of their philosophical positions
- Clearly articulate some of the strengths, opportunities, weaknesses and threats of adopting the different (inter)disciplinary approaches you have considered **making reference to debates** about mixed methods and the (in)compatibility of different philosophical positions
- Critically evaluate your initial philosophical position and research plans and clearly articulate the impact of the experience on your philosophical position and research plans

Examples student work (2020-2021)

Group projects

- Attitudes to climate change
- Climate activism on social media
- Informal housing
- Determinants of quality of life in aging populations

Individual reflections

- Attitudes towards teacher training programmes
- The teaching of imperial history
- How the clinically extremely vulnerable experience shielding
- Pregnancy and body satisfaction
- Experiences of working class students in higher education
- Cross-cultural differences in mother-infant play behaviour
- Interpreting services in UK immigration courts
- Perceptions of the Conservative party among vote-eligible university students in England

End of module feedback (2020-2021)

- 9/11 students rated the module as **good or excellent**
- Students valued
 - The **group work**

“I appreciated the opportunity to discuss research and get to know my fellow students better”; “It was useful to work with individuals from different disciplines”
 - The opportunity to further explore **research paradigms**

“Thought this module really complimented the research paradigm and philosophy content first introduced on the research design module. I welcomed the opportunity to explore this aspect of research more deeply (as well as to consolidate and expand upon previous learning)”
- Concerns were raised about
 - **Alignment** between group presentation (formative) and individual reflection (summative)
 - **Workload** associated with unassessed group work

“The overall work and effort for this module was too much for a 10 credit module. The group work was somewhat interesting, but it would more useful if it was part of the assessment or more close to the actual essay.”



Conclusion

@mcleish_t

Do we just have butter, sugar, eggs and flour in a bowl, or have we baked a cake?



“It was definitely a very interesting module and gave me the opportunity to consider interdisciplinary research and it's benefits in a way that I hadn't before. **I am certain I will use this knowledge in my future research**”

“Overall ... it was an interesting, stimulating module which definitely made a **positive contribution towards my academic career.**”

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References

- Bono, E. D. (1985). Six Thinking Hats: An essential approach to business management. Penguin.
- Edinburgh (2022). [Reflection Toolkit](#), The University of Edinburgh
- ESRC. (2015). [ESRC postgraduate training and development guidelines.](#) ESRC
- Gibbs G (1988). Learning by Doing: A guide to teaching and learning methods. Further Education Unit. Oxford Polytechnic: Oxford.