

EUROPEAN POLICYBRIEF



POCARIM

MAPPING THE POPULATION, CAREERS, MOBILITIES AND IMPACTS OF ADVANCED DEGREE GRADUATES IN THE SOCIAL SCIENCES AND HUMANITIES (POCARIM)

4. INTERDISCIPLINARITY IN SOCIAL SCIENCE AND HUMANITIES CAREERS

Chris Coey, December 2014

INTRODUCTION

Mobility and interactions between members of disciplinary communities are seen to be one of the keys to mobilising knowledge and generating innovation in the knowledge-based economy. Whilst a good deal of policy and research attention has been given to the role of disciplinary border crossings in fields such as the sciences, technology and engineering, there has been less focus on the social sciences and humanities.

The European Commission's commitment to the development of interdisciplinarity in doctoral training and research funding is a core element of the strategy for addressing the societal problems Europe faces. Notably, the Communication 'Delivering on the Modernisation Agenda for Universities' (2006) asserts the need for a shift in research from disciplinary organisation, practices and goals to a problem-oriented, cross-disciplinary model.

One aim of the POCARIM project was to explore the extent and nature of cross-disciplinary mobility and collaborative research activity in the POCARIM social science and humanities (SSH) population. Specifically, we wanted to understand the motivations and outcomes of this activity in terms of careers, knowledge transfer and innovation.

EVIDENCE AND ANALYSIS

A number of possible frameworks for understanding disciplinarity and interdisciplinarity exist (Apostel *et al.*, 1972; Klein, 1990; Bushaway, 2003). However, in the POCARIM study we did not impose any understanding of interdisciplinarity, but interpreted it broadly to mean any cross-disciplinary activity conducted collaboratively or individually (through 'borrowing' from other disciplines or moving over time into new fields) (Strathern, 2007; Lacutta, 2003).

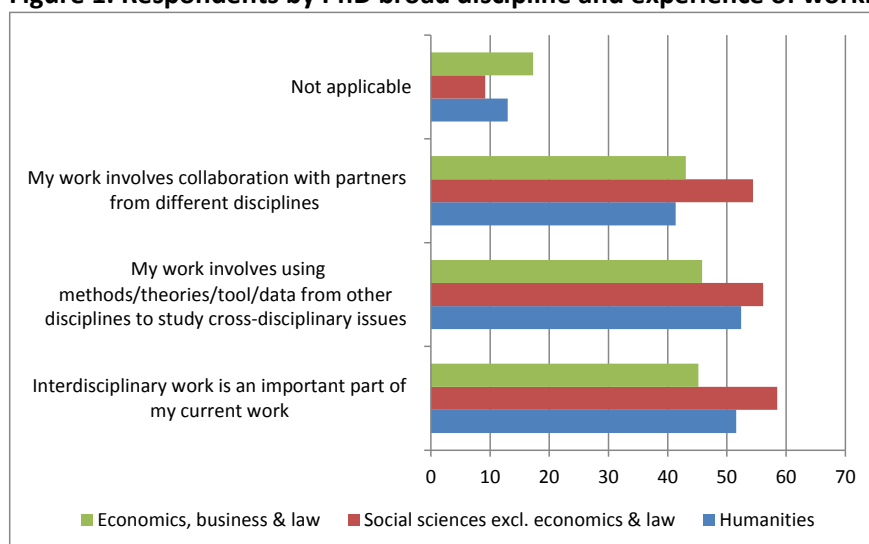
Interdisciplinary exchanges could include methods, concepts or subject knowledge, and could be between closely related subjects within the social sciences and humanities or between more distant fields. This view

of interdisciplinarity enables us to identify a wide range of activities in which respondents undertake a degree of mobility between disciplinary communities which entails adaptation, learning and creativity.

We found that researchers in the POCARIM population are highly interdisciplinary, far more so than suggested in other research (for example ICCR Foundation, 2010; European Commission, 2009). However, POCARIM interviews suggested that most interdisciplinary activity was conducted between fairly closely related disciplines. In addition, our survey suggests that the proportion of SSH researchers who incorporate elements of another discipline in their work is greater than the proportion who is engaged in formally collaborative interdisciplinary work.

There were some significant differences between interdisciplinary activities according to both national and disciplinary location. Social scientists were most likely to report that interdisciplinarity was important to their work, and also that they engaged in both interdisciplinary collaborations and borrowing (figure 1).

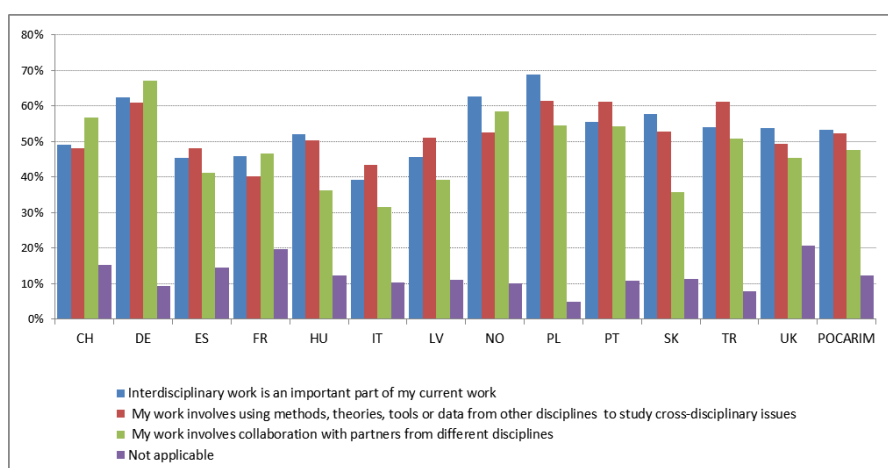
Figure 1. Respondents by PhD broad discipline and experience of working across disciplines (%)



Source: from POCARIM prepared by D. Kupiszewska

Much greater differences are evident in cross national comparisons. 68.9% of Polish respondents, for example, reported that ID was an important part of their current work, whilst this figure was only 39% for the Italian respondents. Interestingly, in six out of the 13 POCARIM countries women were more likely to be involved in collaborative modes of interdisciplinarity than men, and in six countries they were more likely to be involved in borrowing modes of interdisciplinarity (figure 2).

Figure 2. Interdisciplinarity by country



Source: from POCARIM prepared by D. Kupiszewska

There appears to be a gendered dimension to interdisciplinarity. 56.6% of male compared to 50.8% of female respondents overall reported the importance of interdisciplinarity to their work. The degree of collaborative interdisciplinarity (49.3% males and 46.4% females) revealed a difference greater than in the

case of the ‘borrowing’ mode (52.8% of men compared to 51.4% of women). Overall, however, compared to national differences the gendered differences in interdisciplinarity are relatively slight.

Unpacking these patterns in cross-disciplinary activity is complicated, but it is evident that national cultures, funding and policy agendas play a role. For one thing, funding strategies are a major incentive to interdisciplinarity. However, some interviewees suggested that there was some risk that this can lead to strategic assemblages of researchers with limited added value to the substantive aims of a project.

Research career structures, funding and evaluation in SSH remain strongly disciplinary in nature, and this is a disincentive to interdisciplinarity. The two main concerns associated with interdisciplinarity reported by POCARIM interviewees were, firstly, that the value of interdisciplinary work is not recognised in terms of publications, grant applications or system level evaluations.

Secondly, there was a perception that researchers, in particular those at early career stages, could be less employable if they develop an interdisciplinary identity, largely because of the importance of teaching a range of discipline-specific undergraduate courses at these stages.

Furthermore, POCARIM found a concern that interdisciplinary work places greater demands of time and effort upon researchers. This includes reading up on unfamiliar concepts and methodologies, and developing a mutually comprehensive vocabulary through which to engage across disciplines.

Nevertheless, the value of interdisciplinarity is reported widely across the POCARIM study. The value is reported most emphatically insofar as it enables researchers to bring a range of perspectives to bear on a complex problem, build a fuller picture of the issue under study, and devise novel ways to approach and address it.

Interdisciplinary activity can expand the intellectual resources available to a researcher, as well as contribute to the development of broader and more varied networks and, consequently, opportunities. This finding lies in tension with the anxieties about employability which were also evident.

In fact, the impact of interdisciplinarity was strongly indicated by the survey findings. For example, respondents who indicated that ID was important in their work were three times more likely to also report that they had developed innovative products and 2.6 times more likely to have been a board member/volunteer/advisor in an NGO. However, they were only 1.1 times more likely to have taught students or to have published textbooks, monographs, articles or books (table 1).

Table 1. Respondents by impact instrument/activity and experience of working across disciplines (%)

Impact activity	‘Interdisciplinary work is an important part of my current work’ (a)	None of the 3 options of interdisciplinarity is applicable (b)	(a)/(b) ratio
Developed innovative products	28	9	3.0
Been a board member/volunteer/advisor in an NGO	33	12	2.6
Been a board member in a company	14	7	1.9
Given interviews in media (radio, TV, newspapers)	60	34	1.8
Have participated in societal or political committees	40	23	1.8
Have managed/coordinated projects	74	42	1.8
Have advised to policy-actors on the local, regional, national or international level	41	25	1.7
Have taken part in in knowledge transfer activities	73	46	1.6
Have supervised graduate or PhD students	69	46	1.5
Have participated in policy-relevant conferences or events	66	50	1.3
Have taught students	91	79	1.1
Have published textbooks, monographs, articles, books	91	81	1.1

Source: from POCARIM prepared by D. Kupiszewska

POCARIM revealed some of the ways in which cross-disciplinary activity could come about. Interdisciplinary activity was found to emerge mainly from planned ‘moments’ such as conferences, or through repeated encounters in faculties and departments in which researchers from a variety of backgrounds work side by side.

POLICY IMPLICATIONS AND RECOMMENDATIONS

- 1) Academic employers should review career and reward structures to reflect the demands of policymakers for greater cross-discipline engagement. Currently, excellence metrics privilege single discipline outputs.
- 2) At institutional level, recruitment, reward and progression systems need to reflect the increasing number of researchers engaged in interdisciplinarity or who aspire to work across disciplines. Funders and policymakers need to put in place mechanisms which recognise the value of interdisciplinarity in individuals and in projects.
- 3) Effective interdisciplinary collaborations emerge from environments and activities – or interdisciplinary ‘space’ and ‘moments’ – in which opportunities for interaction are plentiful, and individuals find intrinsic motivation through shared interests. Institutions and policymakers should facilitate these encounters through interdisciplinary centres, departments and faculties, as well as ‘seeding’ events at which a mix of researchers explore the possibilities for collaboration. Policymakers could host workshops or conferences that focus on problems of interest and which enable new alignments of researchers to emerge. Groups that emerge could be encouraged to bid for funding.
- 4) Interdisciplinarity involves greater time and effort than single discipline work. Policymakers and institutions should recognise this through, for example, allowing relatively more research or writing time for researchers working across disciplines.

RESEARCH PARAMETERS

The findings contained in this brief are based on original work carried out in each of the POCARIM countries and which includes: a review of the literature, policy and existing data, as well as original empirical survey and interview research. We draw out the implications of our findings for policymakers. The project consisted of two core phases.¹ Each phase was coordinated by a key partner and carried out across the 13 countries by all partners.

Phase one of the research consisted of:

- A review of over 350 studies on the themes of: employment trends, career paths and graduate destinations; and impact, engagement and the contribution of SSH research (Gustafsson and Hansen, 2013).
- A review of policy approaches to interdisciplinarity, doctoral education as the first phase of an academic career, and responses to the economic crisis in terms of funding of doctoral education (Bitusikova, 2013).
- A review of existing statistical data sources on the population of social science and humanities researchers in the POCARIM countries and beyond (Canibano *et al.*, 2013).

Phase two consisted of:

- An online survey of 2,723 SSH doctoral graduates which asked a number of questions on the key themes of the project. These included the perceived impacts of respondents’ work, and their international, intersectoral and interdisciplinary mobilities. Survey data was cleaned and analysed in SPSS and EXCEL (Kupiszewska *et al.*, 2013).
- In-depth, qualitative interviews with 25 respondents in each of the thirteen POCARIM countries. Each interview was transcribed, translated into English if necessary, and entered into a single NVIVO project file for analysis (Ackers *et al.*, 2013).

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PROJECT IDENTITY

PROJECT NAME	(290770) Mapping the Population Careers, Mobilities and Impacts of Advanced Research Degree Graduates in Social Sciences and Humanities (POCARIM)
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CONSORTIUM	University of Lausanne, Institut for Social Sciences, Lausanne, Switzerland Loughborough University, UK IKU Innovation Research Centre, Hungary Ceris-Cnr, Italy Ministry of Education and Science of Latvia Oxford Research AS, Norway CEFMR/IOM, Poland CESIS, Portugal University Mateja Bela, Slovakia CSIC-UPV, Spain Koç University, Turkey University of Salford, UK
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BUDGET	EU contribution: €996,847.00.
WEBSITE	http://www.salford.ac.uk/nmsw/research/research-projects/pocarim-home
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