Promoting Equality, Diversity and Inclusion in University Spinout Companies: A Case for Action

FOCUS GROUP METHODOLOGY

Introduction

Our focus groups[1] were designed to pursue a 'dual agenda' of data creation and knowledge sharing. The overall aim was to explore early career researchers' (ECRs) attitudes towards entrepreneurial activities and commercialisation of research and we used a co-creation research approach to encourage participants to reflect on their own experiences[2]. As well as generating research data, we provided space to raise awareness about academic entrepreneurship and encouraged participants to consider how commercialisation activities could form part of their own future career plans. The data collected will inform the development of tools to enable Higher Education Institutions (HEIs) to adopt inclusive interventions that support women and other underrepresented groups into academic entrepreneurship. Our analysis of this data focused on the ways in which gender and other intersecting inequalities inform participants' experiences and considers to what extent the current Higher Education (HE) innovation landscape is inclusive of gender and other social factors.

This methodology can be adopted by other Higher Education Institutions (HEIs) to investigate the attitudes and interest of early and mid-career researchers from under-represented groups towards academic entrepreneurship and use the data collected to develop bespoke interventions.

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[1] The full report 'Academic Entrepreneurship: Early Career Researchers' Perspectives' can be accessed here.
[2] Research design and methodology approved by the Oxford Brookes University Research Ethics Committee (UREC).

Sampling and recruitment

In total, we conducted 12 focus groups across eight universities in the UK. We felt it was important to include perspectives from ECRs at a variety of institutions as our previous report showed that there was a polarisation in spinout activity between research intensive, Russell Group universities and other mission groups[3]. This ensured our sample included a diverse range of perspectives and offered a good representation of the different types of HEIs in the UK. Each focus group lasted approximately two hours and participants were largely ECRs, either current PhD students or postdoctoral researchers.

We chose to focus on the experience of ECRs as we previously identified[4] this group as being more active in founding spinouts than is typically recognised, challenging the myth that academic entrepreneurship is the preserve of more established, senior academics. We were also keen to understand if ECRs faced particular challenges – related to their gender or otherwise – that may deter them from pursuing commercialisation. In particular, whether they felt their age and inexperience acts as a barrier; the impact of precarious employment on their attitude to risk; and the levels of support or encouragement they felt they received from the colleagues and their institutions more widely. We also felt that this group of researchers would benefit most from learning about academic entrepreneurship in a neutral, informal setting. ECRs are the researchers and innovators of the future and as such, would benefit from learning more about academic entrepreneurship as they plan and develop their academic careers.

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[3] These findings and the full report 'Gender and University Spinouts in the UK: Geography, Governance and Growth' can be accessed here.
[4] These findings and the full report 'The Spinout Journey: Barriers and Enablers to Gender Inclusive Innovation' can be accessed here.

Data collection and analysis

Data was gathered using an experiential technique that originated from process design and was adapted by consultancy company Yellow Window[5] for the purposes of organisational change. This methodology allowed us to run the focus groups as a workshop with participants actively engaging in group activities. The aim was to generate data on the following topics:

- knowledge and understanding of spinouts and academic entrepreneurship
- perceived barriers to pursuing spinouts and academic entrepreneurship
- ideas for enablers to pursue spinouts and academic entrepreneurship

To do this, participants were asked to engage in three activities:

- A brief group **discussion** about what they already know about spinouts and academic entrepreneurship;
- A short **warm up activity** that encouraged reflection on the ECR experience.
- A longer, more in-depth **main activity**, which asked participants to consider the barriers and enablers to spinning out.

These exercises generated discussion by asking participants to focus on issues that felt pertinent to them and consider the underlying reasons why that issue might be a barrier to academic entrepreneurship. All discussions were captured using audio recorders and each recording was transcribed before being thematically coded by three researchers on the project. After all the transcripts had been analysed the coding framework was agreed by the wider research team and this framework was then used to revisit the data to validate and refine the categories and emerging narratives.

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[5] Yellow Window are a product, service and policy designer consultancy. One of their areas of expertise is gender equality and they have developed toolkits and capacity building programmes on Gender Equality in Research and Academia, Gender Based Violence and Gender Mainstreaming.

Workshop activities

Opening whole group discussion: what is a spinout?

After a very brief introduction of the project, participants were asked what they knew about spinouts, leading with the question, '*What is a spinout?*'. This question was deliberately broad in order to gauge the level of knowledge in the room and identify individuals who had already explored academic entrepreneurship to some degree. It was also a technique to ensure that everyone present would have some basic understanding of what a spinout is (and is not) before we started the activities. In some cases, this question alone created valuable and lengthy discussions about academic entrepreneurship and HEI innovation initiatives. It also provided participants with their first opportunity to ask questions in order to broaden their knowledge and understanding on the topic.

For the purposes of this report, we have only referred to these initial discussions very briefly as a deeper understanding of participants' preconceptions of academic entrepreneurship was gathered during the final exercise. However, it was a very useful activity for benchmarking the level of awareness around spinouts (and other forms of commercialisation) at each HEI.

This first task was followed by a very brief presentation of some key findings from our first research report on the landscape of university spinouts within the UK. To offer some relevant context for the forthcoming activities we focused on the finding that only 13% of active spinouts in the UK have a woman founder or co-founder, as well as showing the top four universities with the highest proportion of women founders[6]. In some instances, this prompted another valuable discussion as we provided participants with some time to critically reflect on these findings and what it might mean for them in their institutions.

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[6] These findings and the full report 'Gender and University Spinouts in the UK: Geography, Governance and Growth' can be accessed here.

Over the course of the research, we experimented with swapping these two discussions around but the majority of participants were keen to have confirmation of what a spinout was upfront. Without this knowledge participants were unable to contextualise the additional project information and research findings, with some visibly appearing uncertain and others asking questions for clarification about wider aims of the project and focus group.

Warm up activity: creating a persona of an early career researcher in STEM at your university.

The first activity was created as an icebreaker to ease participants into the mind set required for a co-creation workshop. This exercise lasted approximately 20 minutes and required participants to work in breakout groups (3 - 6 per group) to create a persona of an early career researcher in their institution. The idea of designing personas originates from design cycle thinking and is typically associated with a systems and software development process. A persona is a fictitious use of a product or service which represents the characteristics and behaviours of a particular group or individual.[7]

This activity was designed to serve several purposes:

- **An introduction to group work and to each other:** participants were divided into self-selected breakout groups which in many cases meant working with people they had never met before so it was important to give them an opportunity to work together briefly prior to the main data collection activity.

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[7] **Pruitt, J. and Grudin, J**., 2003, June. 'Personas: practice and theory' In *Proceedings of the 2003 conference on Designing for user experiences* (pp. 1-15); **Marsden, N. and Haag, M**., 2016, May. 'Stereotypes and politics: reflections on personas' In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 4017-4031); **Faily, S. and Flechais, I**., 2011, May. 'Persona cases: a technique for grounding personas' In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 2267-2270). Available via: http://www.cs.ox.ac.uk/files/3737/chiNote.pdf.

- **Removes participant vulnerability:** allows individuals to draw on their own experiences without directly disclosing difficult or vulnerable issues.

- **Another person's perspective:** encourages participants to think outside their own personal milieu and consider issues that may affect the wider ECR community.

- **Initial generation of ideas:** this activity encouraged participants to think about the experience of being an early career researcher, generating ideas and issues they could carry forward into the next exercise.

- **An exploration of unconscious bias:** this exercise provided some fascinating insights into researchers' own unconscious gender bias, which can become an interesting topic for discussion and further exploration.

Participants were encourage to think about the following characteristics to help build their persona:

- **Name:** to create a sense of character.

- **Demographics:** e.g. age, nationality, gender etc.

- **Descriptions:** your persona's characteristics, personality, skills, interests, expectations, frustrations, attitudes, and so on…

- **Motivations:** why they do what they do e.g. influences, goals, priorities, fears.

- **Quotes – something your persona might say:** summarises your persona's attitude, relatable, expresses their needs and opinions.

Each group was provided with a randomly selected image for their persona as it is important to give them an initial focal point as well as creating a sense of reality; facilitators were mindful to ensure that these images represented a diverse population.

They were also given a large sheet of paper with sections aligning to each of the personas characteristics (see above); a selection of coloured sticky notes; and enough pens for each individual to contribute if they wished.

At the end of the exercise, breakout groups were asked to feed back to the whole group. This supported the wider sharing of ideas prior to the main exercise but also helped breakdown any remaining unease within the room so participants were more relaxed for the remainder of the workshop.
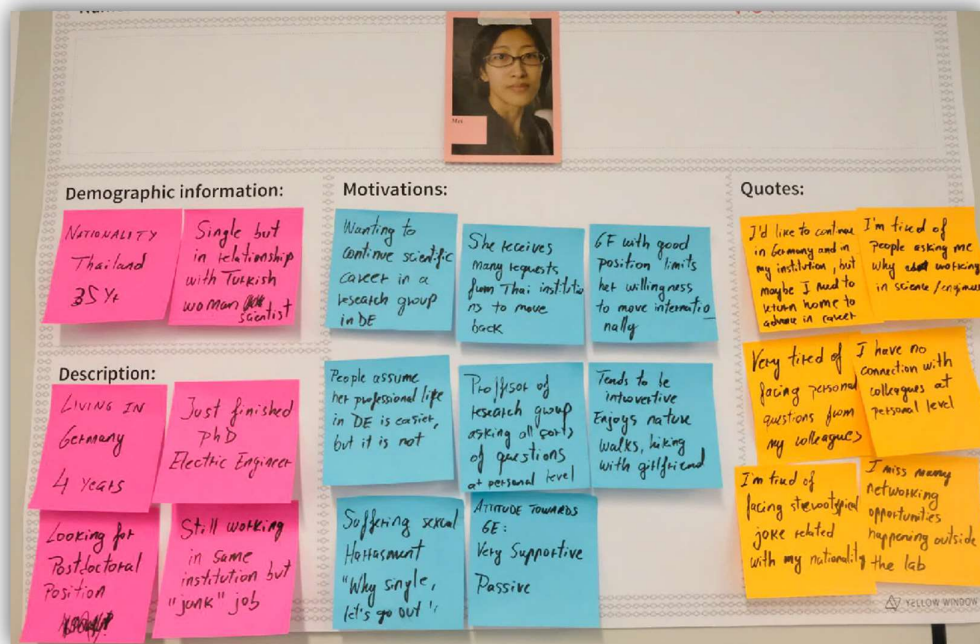

Image 1: Example of warm up activity - creating a persona of an ECR

Main activity: causes diagram

The causes diagram is Yellow Window's adaptation of a cause and effect diagram, such as the fishbone or Ishikawa diagram used in quality control and management assessments. The causes diagram allows participants to map the entire context around a problem and consider the deeper, underlying causes of that problem.

The 'problem' or context we ascribed to this task was: *'I've not yet founded a university spinout company because…'* Participants were encouraged to brainstorm any possible reasons for this, drawing on their own personal experiences or using the persona they created in the first exercise for inspiration. Inevitably, discussions also included anecdotes of friends and colleagues who had more experience of entrepreneurship.

Once the group had agreed on a cause, it was written on a post-it note and stuck on the sheet in the innermost circle as a 'direct cause'. Participants were then prompted by facilitators to reflect more deeply on this cause i.e. this reason why they had not founded a university spinout company. These deeper reflections would become 'indirect causes' or 'contributing factors'. This process encourages participants to go beyond immediate or individual barriers/enablers to consider wider structural causes that may be operating at the departmental, institutional or even national level.

Referring to the example in Image 2, one 'direct cause' chosen by the group was '*Don't know how to do it*'. When asked why this was, they felt it was because they lacked '*Business acumen/education*', which was added as an 'indirect cause'. Prompted to consider wider, structural explanations for this potential barrier, the group agreed it was because 'KEF is less important that REF/TEF[8]' which they put down as a 'contributing factor' in the outermost arch.

[8] Acronyms for HEI assessment criteria: Knowledge Exchange Framework (KEF); Research Excellence Framework (REF); Teaching Excellence Framework (TEF).
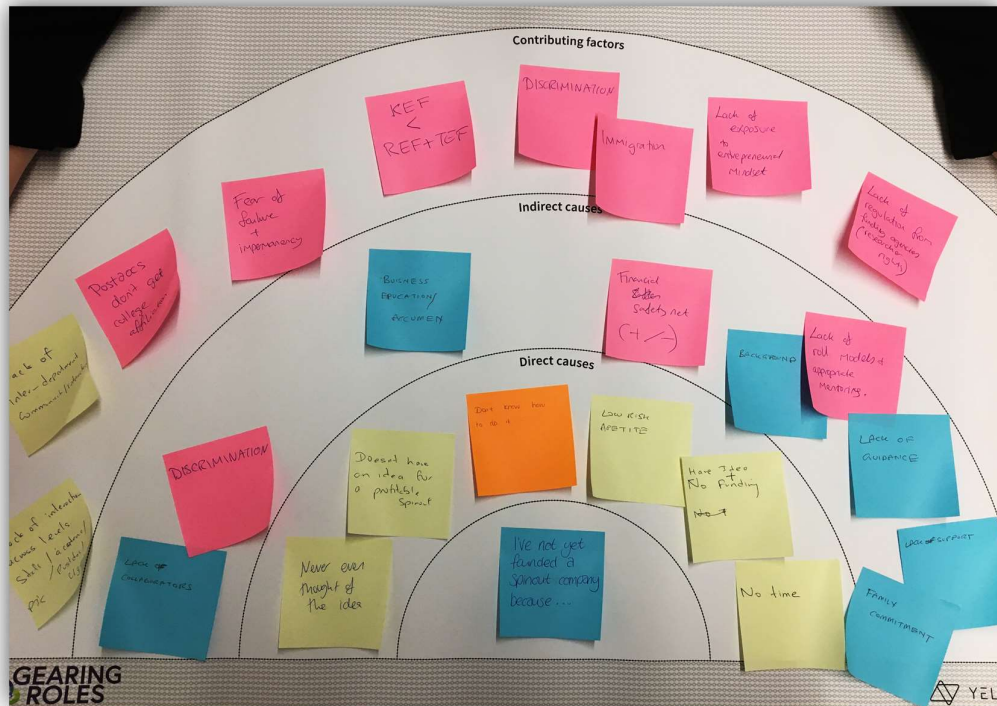
Image 2: example of main activity - causes diagram to assess barriers and enablers to academic entrepreneurship

Knowledge Exchange

We left time at the end of every workshop to offer participants a chance to ask questions and better understand the opportunities for academic entrepreneurship in their institutions. Facilitators encouraged questions throughout and many of these questions focused on what participants might do next if they wanted to learn more.

Prior to each workshop, we conducted desk research on each institution's web pages to help guide participants as in some institutions, the Technology Transfer Office (TTO) or

enterprise departments were more visible and accessible than others. As well as offering a short tour through their own institutions relevant web pages we also helped participants navigate the various concepts and terminologies that were used on these web pages and help them relate this to the discussions that were had during the workshop.

We also provided an overview of national funding and guidance initiatives available for academic entrepreneurship so participants could begin to envision the wider ecosystem that existed around their institution.

Participant feedback

'It was a good and 'empowering' chat. It is nice to know that there are studies and people dedicating their time to understand and provide support on bridging the gaps in gender equality in a man-dominated area.'

'Improved my understanding of spinouts and differences with start-ups.'

'[Made me] more aware of opportunities, more confident to explore ideas.'

'I enjoyed the activities from a practical perspective- they helped structure thoughts well. I think the questions/facilitation was good at steering/picking apart the discussion.'

'I thought this workshop was a very enjoyable and engaging session. The second activity, causes of why people don't start spinouts was a great way to start the discussions on this topic and interesting to see others perspectives.'

'Interesting workshop- great recommendation and info and stats about spinouts.'

'I learned where I can find the right information.'