

Good Practice in Providing Careers Guidance for Postgraduate Research Students

June 2020

A resource for Heads or Directors of university careers services; Pro Vice Chancellors, or their equivalent, with responsibility for PGR student cohorts; researcher developers; supervisors and those with a responsibility for PGR students on an individual basis

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Introduction and summary of key findings

On completing their studies, an increasing number of postgraduate research students (PGR students) are looking to employment beyond academia. Recent data has shown that as many as 70% of doctoral graduates across all subject areas will have left academia within three and a half years of graduating.¹ While this is partly the result of an increasingly competitive and crowded academic job market, it is also the case that PGR students, and those from arts, humanities, and social science subjects in particular, are well positioned to succeed in a variety of careers and possess a range of high-level skills which are in demand from employers.² There are many reasons why an individual undertakes a postgraduate research degree and it should not be assumed that the desired end goal is always a career in academia, or that career ambitions will not change over the course of doctoral study. Consequently, good careers guidance is key to helping PGR students and graduates appreciate and maximise their choices and opportunities, in order to make the most of their skills and attributes in finding a successful and rewarding career, whether in academia or beyond.

In a study conducted for the British Academy by the University of Warwick, the PGR students surveyed identified a wide range of skills which they felt they had developed over the course of their doctoral studies. These skills included communication and research skills; being able to put together a large project; producing written work of publishable quality; presentation skills; independent working and intellectual confidence; the ability to critically evaluate and reason in a balanced way; the ability to synthesise and analyse a range of sources and a large amount of data; self-sufficiency in time management and motivation; and problem solving.³ Just as these skills are important for any aspiring academic, they are also readily transferable to a variety of careers beyond academia.

Key recommendations from the British Academy's *The Right Skills* report were that universities should better prepare their students for roles in a global future, in which working environments are likely to be more fluid than had been the case for previous generations, and to ensure that the UK has the skills it needs for productivity and growth in the 21st century.⁴ This resource has been produced in response to these recommendations, with a focus on better preparing highly-skilled postgraduate research students for a diverse range of employment possibilities. While there are many examples of excellent practice in broad and inclusive careers guidance for PGR students, it remains the case that there are fewer incentives for universities to offer good career guidance for this cohort, particularly for non-academic pathways. Attitudes within academia can still view students completing a doctorate and wishing to pursue a career elsewhere as having resorted to a 'Plan B'. These factors have resulted in uneven provision of careers guidance, support, and resources for PGR

¹ Hancock, S. (17 February 2020), 'The employment of PhD graduates in the UK: what do we know?', HEPI blog

² For more information about the range of skills, see *The British Academy* (2017), *The Right Skills: Celebrating Skills in the Arts, Humanities and Social Sciences*

³ Lyonette, C., Hunt, W. and Baldauf, B. (2017), *Occupations and skills of Arts, Humanities and Social Science Graduates and Postgraduates*, Warwick Institute for Employment Research, University of Warwick, section 5.4.2, pp. 73-74

⁴ The British Academy, *The Right Skills*, p. 13

students across the sector, when compared to other student cohorts. This is illustrated by results of the 2019 Postgraduate Research Experience Survey (PRES), in which only 31% of PGR students reported that they had received advice on career options. While this is an increase from the 27% who reported this in the 2018 report, this figure is still very low, especially when compared to the 76% who reported having received training to develop their research skills.⁵ This evidence suggests that there is more that could be done across the sector.

This document aims to support an increase and improvement in careers guidance provision for PGR students, by offering examples of current good practice from across the UK's higher education sector and beyond. The examples are intended to be illustrative and a stimulus for further reflection, rather than the results of a comprehensive survey of practice across the sector.

The document was compiled by building on the initial evidence which informed the publication of *The Right Skills* report, combined with a synthesis of literature relating more specifically to the experience of postgraduate research students and examples of current good practice drawn from universities in the UK and beyond. The examples and features of good practice discussed in this document are relevant to all PGR students but, where appropriate, distinctions have been drawn between the experience of PGR students from arts, humanities, and social science disciplines, and those from STEM disciplines.

In further response to findings and recommendations of *The Right Skills* report, a group of case studies have been collated, which sit separately to this document but complement its findings. They are intended to help enhance the evidence base for the varied and successful career pathways taken by PGR graduates, in particular those from arts, humanities, and social science disciplines.

Many of the themes discussed in this document echo and expand upon those described by Vitae in their 2017 survey of arts and humanities doctoral and early career researchers and their professional development.⁶

The key elements identified in this document as being integral to good careers practice for PGR students can be summarised as:

- Providing specialist careers guidance, tailored to PGR students, which is honest and balanced
- Integrating careers development into the doctoral process, to encourage participation and engagement from the earliest stages
- Utilising the existing support network of postgraduate researchers and the wider research community and encouraging co-creation of events and resources for careers guidance
- Ensuring that resources are suitable and accessible to postgraduate students in all modes of study and whatever their own background or circumstances

⁵ Williams, S. (2019), *2019 Postgraduate Research Experience Survey*, Advance HE, p. 23. Unlike the 2018 report, the 2019 report does not provide different figures depending on whether Russell Group participants are included or excluded from the numbers; when these were removed from the 2018 results, only 26% of PGR students reported that they had received advice on career options. For the 2018 results see Neves, J. (2018), *2018 Postgraduate Research Experience Survey*, Advance HE, p. 17

⁶ Vitae, Thouaille, M-A. (2017), 'One size does not fit all. Arts and Humanities doctoral and early career researchers' professional development survey', The Careers Research and Advisory Centre (CRAC) Limited

- Making use of PGR alumni networks and providing real life examples and advice about a variety of career pathways
- Engaging employers and industry to encourage reciprocal knowledge sharing and promoting the value of PGR skills and attributes.

This document is intended to be of use to any stakeholders with an interest in and responsibility for PGR careers guidance, including Heads or Directors of careers services; Pro Vice Chancellors, or their equivalent, with particular responsibility for PGR cohorts; researcher developers; or supervisors and others with a responsibility for PGR students on a more individual basis.

1.0 What does good practice look like?

1.1 Tailored and balanced careers guidance

Perhaps the most significant action which can improve careers guidance provision for PGR students is for universities to develop and maintain resources directly relevant and tailored to this cohort. Regulatory interventions such as the Teaching Excellence Framework create an incentive to offer excellent careers guidance for undergraduate and other taught students, but the information provided for PGR students has not been incentivised across the sector in the same way. 40% of heads of careers services report budget constraints and limited resources as a major constraint on improving and expanding current provision.⁷ Ideally, however, an institution will provide tailored advice for each of their separate student cohorts, whether that be undergraduate (UG), postgraduate taught (PGT), or PGR. These groups are at different stages of their academic, personal, and professional development and their reasons for studying may also be very different.

While advice on making good career decisions or producing an effective non-academic CV may be fundamentally the same across these different cohorts, what is relevant for an undergraduate in terms of careers guidance is unlikely to be appropriate for someone undertaking a doctorate. At doctoral level, the proportion of students balancing other responsibilities alongside their academic studies is also likely to be greater, making it more difficult to find time to engage in careers development. HESA student data for 2018-19 showed that 26% of full-time PGR students in UK universities were from non-EU countries, with a further 11% coming from other EU countries, meaning that a significant proportion of the cohort might look for employment overseas after graduation.⁸ It is not reasonable to expect careers services or those with responsibility for PGR careers guidance to provide expertise on the labour market of every country, but the likelihood of graduates seeking employment overseas should be recognised for PGR students, just as it is for UG and PGT cohorts.⁹

Motivations for undertaking a doctorate vary, from a personal interest in a particular area of research and a desire for further intellectual development, to a change of life direction or career for those perhaps returning to academic study after a period away, in addition to the more widely recognised stepping stone to an academic or research career. In the results of the most recent PRES, 41% of PGR students surveyed across all subject areas reported that ‘interest in the subject’ was their main motivation for undertaking a doctorate, up from 36% the previous year.¹⁰ A further 31% responded that they were motivated by the chance to improve their academic career prospects and 9% wanted to improve their career prospects beyond academia.¹¹ More focused careers guidance for this cohort can help meet the needs of these various aspirations and career expectations, as well as articulating and celebrating the broad

⁷ AGCAS (January 2019), *AGCAS HE Careers Services Survey 2018: Research Report*, p. 30

⁸ HESA, ‘HE student enrolments (including on AP designated courses) by provider and domicile [Academic Year 2018/19]’, source: HESA, retrieved from www.hesa.co.uk under CC-BY-4.0 licence.

⁹ Universities UK International, AGCAS, UK Council for International Student Affairs (UKCISA), Coventry University (January 2020), *Supporting International Graduate Employability: Making good on the promise*, Universities UK International

¹⁰ Williams, 2019 *Postgraduate Research Experience Survey*, p. 13

¹¹ Williams, 2019 *Postgraduate Research Experience Survey*, p. 13

range of high-level skills that PGR students develop and the range of options open to them.

Whatever their motivations for studying for a doctorate, it is no longer the case that the majority of PGR students will continue into a long-term career in academia. The skills and attributes that an individual develops over the course of their doctorate, however, are highly applicable and valued in a range of sectors and careers. The broader options open to PGR graduates need to be clear to them if they are to make informed choices and progression in their professional and career development. This should start early in the doctoral process if not before.

The importance of tailoring this guidance to suit the cohort and to suit the different skills and experiences across different disciplines is evidenced by PGR students themselves. 37% of PGR students within arts and humanities disciplines surveyed by Vitae for their 2017 report stated that inappropriate provision was a main barrier to engagement with professional development activities.¹² The key examples given were sessions which ignored specific needs of arts and humanities researchers, or that didn't take the diverse individual experiences and developmental needs of doctoral students into account.¹³

1.1.1 Examples of good practice in providing careers guidance and support tailored to a PGR audience

- **University of St Andrews**

The University of St Andrews runs a programme of workshops and activities which is specifically designed for PGR students, called GRADskills. The programme advertises itself as offering "... a comprehensive suite of development opportunities ..., tailored careers support and a single point of contact for postgraduate researcher development." It includes thematic bundles of workshops, spread across the year, and covering all stages of the doctorate. Topics include 'Getting started', 'Dealing with my Data', 'Writing and publishing', and 'Finishing Up: what's next?'. As with many examples of good practice, workshops are mapped to Vitae's Researcher Development Framework (see p. 12 for details).

<https://www.st-andrews.ac.uk/pgstudents/stleonards/training/research/gradskills/>

- **University of Birmingham**

The University of Birmingham's careers pages include a 'Career Network for Postgraduate Researchers', hosting further information and resources on a variety of careers, as well as useful guidance for those still undecided on their next career steps. Within the advice for those not yet decided is

¹² Vitae, Thouaille, 'One size does not fit all', pp. 15-16

¹³ Vitae, Thouaille, 'One size does not fit all', p. 15

information on what to consider, helping to narrow down options, and information based on career routes taken by previous PGR graduates, with separate information on humanities and social science graduates and STEM graduates. Each employment area listed also links to case studies of Birmingham PGR alumni who have gone on to work in that sector. In addition to tailoring advice to PGR students more generally, there are separate sections for international PGR students, as well as information on forthcoming careers events for PGR students and labour market information.

Career Network for Postgraduates:

<https://intranet.birmingham.ac.uk/as/employability/careers/postgraduate/pgr/index.aspx>

Career options for PGR students:

<https://intranet.birmingham.ac.uk/as/employability/careers/postgraduate/pgr/pgr-career-options/index.aspx>

Labour market information:

<https://intranet.birmingham.ac.uk/as/employability/careers/postgraduate/pgr/what-do-phd-grads-do.aspx>

Entrepreneurship is a career option that can often be overlooked for PGR students. The University of Birmingham also offers specific guidance for those PGR students who might wish to go on to start their own business.

<https://www.birmingham.ac.uk/postgraduate/pgr/careers/entrepreneurship.aspx>

- **Goldsmiths, University of London**

Goldsmiths host a dedicated section for those undertaking a doctorate within their Careers Centre webpages. 'Career options with a PhD' offers information to help PGR students think about their future career path, along with examples of pathways taken by PGR alumni. As the topic can be a daunting one, the resources suggest students begin by considering their reactions to some statements, including 'I want to progress into an academic career' and 'I want a portfolio career where I can combine creative practice with other work'. This introduces the various career pathways that are open to PGR graduates, without offering an oversimplified dichotomy of choice between 'academic' and 'non-academic' careers.

<https://www.gold.ac.uk/careers/phd/>

- **University of Manchester**

Within the cohort-specific materials and advice on the Careers Service webpages are a number of 'How to' guides, which are specifically designed for postgraduates and focus on careers guidance topics such as exploring individual strengths and adding to them, finding potential career contacts

and, importantly, recovering from setbacks. This latter 'How to' guide looks at something which few resources address directly, but which will be experienced by all PGR students whatever their intended or eventual career pathway. A number of other universities link to these resources, indicating that they are widely valued and respected.

<http://www.careers.manchester.ac.uk/postgraduates/doctoral-researchers/>

'How to' guides:

<http://www.careers.manchester.ac.uk/postgraduates/howtoguides/>

Alternatives to an academic career:

<http://www.academiccareer.manchester.ac.uk/foryou/phd/alternatives/>

- **University of Nottingham**

These webpages provide balanced guidance, emphasising that pursuing a career beyond academia should not be thought of as a failure. This is an important and realistic message to get across when advising PGR students about their potential career options which, being part of a research environment and working towards an academic qualification, may not be easy to realise and appreciate.

<https://www.nottingham.ac.uk/careers/phd-students/index.aspx>

- **University of York**

Here, careers guidance for PGR students is hosted within the Graduate School webpages. Not only is this a logical place for PGR students to look for advice on various aspects of their doctorate, but hosting careers guidance information alongside other elements relevant to the PGR student experience and community can help to better integrate careers guidance into the doctoral process. Advice is offered on the wider employment opportunities within higher education beyond the purely academic route, something which is often overlooked in careers guidance for PGR students. This links to information provided by the University of York's Human Resources department.

See 'Academic, research and teaching careers' link:

<https://www.york.ac.uk/research/graduate-school/careers/explore/>

- **University of Leeds**

The Careers Centre blog includes a post on 'Town and Gown', aimed at those PGR students who may be considering a career beyond academia. As well as offering practical advice about this pathway, it is also honest about the realities of the job market. Helpfully, the post links to relevant services and sources of advice throughout, as well as providing links to advice which is further tailored to PGR students in different disciplines.

<https://leedsunicareers.wordpress.com/2016/02/26/gown-to-town-considering-a-career-outside-of-academia-for-post-graduate-researchers/#more-3249>

The examples of good practice given above can offer some inspiration for universities to increase their own provision for PGR students.

1.1.2 What might make a difference?

- Assigning adequate resources to the development of PGR-specific careers guidance provision which is suitable for the needs and aspirations of the PGR student cohort of the institution
- Recognising differences between subject areas and the range of particular skills which they develop and hone when providing careers guidance or offering advice at either departmental or institutional level
- Offering rounded, balanced careers guidance on careers both within and beyond academia will mean that PGR students are better informed and better prepared with a greater range of choices for life after graduation, even though an academic career may be the primary motivation for many

1.2 Integrating career development into the doctoral process

The final stages of a doctoral degree is an intense period in which PGR students are not only finishing up a project which has been their primary focus for the preceding three or more years, but are also faced with a key moment of career transition. Under such pressures, PGR graduates at this point can be lacking in reserves of mental and emotional energy to help them through this change.¹⁴ Engagement in career development from the earliest stages of their doctorate, continuing throughout their studies will enable them to develop a portfolio of ideas and experience well in advance of the final push towards the completion of their thesis and its subsequent defence.

Embedding careers guidance and development into the overall doctoral process ensures that every student has ready access to this support. When asked about barriers to their engagement with professional development opportunities, 51% of arts and humanities PGR respondents to Vitae's survey stated that time constraints were their main barrier to engagement.¹⁵ This is more likely to be the case for those PGR students who are part-time, non-resident, or have caring or other additional responsibilities outside of their studies. The integration of careers guidance and development into the doctoral process is therefore not just a question of availability but, importantly, also one of accessibility and inclusion. A more integrated approach would also help to spread out the additional necessary time commitment that engaging with careers guidance and development entails, while minimising the overall impact on research priorities and progress.

Just as careers guidance material and advice tailored to undergraduates may not always be suitable for PGR students, so PGR students at different stages of study may also have different needs and requirements. Research has suggested, for example, that the second year of doctoral study can be a key stage for PGR students making formal career decisions.¹⁶ At this point they have made strong inroads into their research project and may be re-evaluating their attitudes and feelings towards academia and other career pathways. While many institutions across the higher education sector recommend that training needs analysis is conducted with a student at the start of their doctorate, training needs, desired career outcomes and expectations can develop over the course of the doctorate and so it makes sense to repeat this within regular review of overall doctoral progress. Evidence suggests, however, that few PGR students regularly review their training needs analysis and still fewer conduct this in coordination with their supervisors. Just 14% of respondents to Vitae's doctoral and early career professional development survey stated that they regularly reviewed a training needs analysis on their own, and only 24% stated that they regularly reviewed this with their supervisors.¹⁷

The doctorate has traditionally been seen as a form of academic training or apprenticeship, but given a reality in which only a small proportion of doctoral graduates will be able to progress into an academic career, a more integrated approach to the doctorate is needed. This has been identified in a number of

¹⁴ Jones, C. (June 2017), 'Highs and lows, smiles and tears: Insights and observations from over ten years supporting ECRs', *Phoenix*, Issue 151, 'Supporting Postgraduate Students', pp. 16-17

¹⁵ Vitae, Thouaille, 'One size does not fit all', pp. 15-16

¹⁶ Sharples, J. (June 2017), 'Postgraduate Researchers: doctoral identity', in Prescott, H., Alpion, D., and Sharples, J. (June 2017) 'Demystification, diversity and doctoral identity', *Phoenix*, Issue 151, 'Supporting Postgraduate Students', p. 9

¹⁷ Vitae, Thouaille, 'One size does not fit all', p.10

places, including Vitae's research focused on personal development for early career researchers in arts and humanities.¹⁸ UKRI's guidance on postgraduate training includes the expectation that students should receive career guidance both before and during their doctorate, as this enables them to choose the most appropriate type of PhD for them, supports them to manage their own careers and have the confidence to explore a variety of employment opportunities and sectors.¹⁹

1.2.1 Examples of initiatives, incentives, and frameworks for integrating career development into the doctoral process

- **Concordat to Support the Career Development of Researchers**

The Concordat to Support the Career Development of Researchers, commonly known as the Researcher Development Concordat, is an agreement between funders, institutions and other stakeholders to improve employment and support for researchers and researcher careers in higher education in the UK.²⁰ It was revised in 2019 by a sector writing group following an independent review and sector consultation in 2018, under the guidance of the Concordat Strategy Group.²¹ The Concordat sets out three Principles covering environment and culture, employment, and professional and career development. The Principles are underpinned by obligations for the four key stakeholder groups, funders, institutions, researchers, and managers of researchers, to realise the aims of the Concordat. While the primary focus of the Concordat is on early career researchers, universities are encouraged to apply its Principles to all those in the research ecosystem, including PGR students.

Acknowledging the increasingly diverse employment market which researchers must contend with, the obligations on for institutions under the third Principle focus on ensuring that researchers have access to careers guidance and resources across a variety of careers, within and beyond academia, as well as the time to engage with them effectively.²² The emphasis is on making engagement with professional and career development a regular part of research culture which, from a PGR perspective, would make it an integral part of the doctoral process. Under the Concordat, funders are expected to acknowledge the variety of careers that PGR students and researchers can move on to, and to consider how they can be encouraged and supported to do so within the regulations of their funding agreements.²³ These obligations recognise the increasing variety of career pathways that researchers move onto and the need for the structures of Higher Education, including the doctorate, to reflect this.

<https://www.vitae.ac.uk/policy/concordat>

¹⁸ Vitae, Thouaille, 'One size does not fit all', p. 3

¹⁹ UKRI (2016), *Statement of Expectations for Doctoral Training*, p. 2

²⁰ Concordat Strategy Group (2019), *The Concordat to Support the Career Development of Researchers – Commonly known as the Researcher Development Concordat*

²¹ Vitae (2019), 'Evolution of the Concordat'

²² Concordat Strategy Group, *The Concordat to Support the Career Development of Researchers*, p. 6. Principle on 'Professional and career development', especially obligations 3 and 4 for institutions

²³ Concordat Strategy Group, *The Concordat to Support the Career Development of Researchers*, p. 6. Especially principle 3 for Funders

- **The Researcher Development Framework**

Vitae's Researcher Development Framework (RDF) maps the knowledge, behaviours and skills that the higher education sector has identified as attributes of successful researchers in order to provide a structure to underpin professional development for researchers, including those at doctoral level. It was developed in 2009 in collaboration with the higher education sector and other stakeholders in response to an absence of recognition of research as a profession and lack of clarity about the defining characteristics of a researcher.

The core of the RDF, which maps 63 competencies of successful researchers across four domains and 12 sub-domains, has been determined and defined by the research profession. It is the result of a robust process including interviews and focus groups with over 100 researchers and additional expertise from specialists and other stakeholders.²⁴

As well as providing researchers with an internationally recognised route map for their professional development, the RDF is of benefit to those developing career and professional development (CPD) guidance, resources, and events, whether at an institutional or department level. It can also be used to identify where there may be gaps in current CPD provision, although it is not intended to be a deficit model when used with or by individual researchers. The RDF is embedded across over 140 higher education institutions in the UK. As a result, resources to help UK higher education institutions integrate career development within the doctorate have been available for some time, include a collection of resources on the Vitae website.

Vitae have also developed 'Lenses' on the Framework, in order to focus use of the RDF in areas such as employability, emphasising the behaviours, attributes and skills of researchers which are most desired by employers across all sectors, as well as 'Getting started in research' for researchers in the first few months of their doctorate.

The RDF:

<https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework/developing-the-vitae-researcher-development-framework>

Collection of RDF resources:

<https://www.vitae.ac.uk/vitae-publications/rdf-related>

Researcher Development Statement:

<https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework/the-vitae-researcher-development-statement>

RDF methodology and validation report:

<https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae-methodology-report-2012.pdf>

²⁴

See Vitae, Reeves, J., Denicolo, P., Metcalfe, J., and Roberts, J., (2012), *The Vitae Researcher Development Framework and Researcher Development Statement: methodology and validation report*, The Careers Research and Advisory Centre (CRAC) Limited for full details

Employability lens on the RDF:

<https://www.vitae.ac.uk/vitae-publications/rdf-related/employability-lens-vitae-researcher-development-framework-rdf-may-2012.pdf>

‘Getting started in research’ lens on the RDF:

<https://www.vitae.ac.uk/vitae-publications/rdf-related/getting-started-in-research-lens-on-the-vitae-researcher-development-framework-2013.pdf>

All lenses on the RDF:

<https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework/lenses-on-the-vitae-researcher-development-framework>

RDF Planner to assist higher education institutions and individuals in mapping their professional development against the framework:

<https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework-planner>

- **University Alliance Doctoral Training Alliances**

The approach taken to the doctoral training process across the various Doctoral Training Alliances is well suited to a more integrated approach to careers guidance and provides a good example of the value in removing the binary distinction between ‘academic’ and ‘non-academic’ career pathways. Whether in Applied Biosciences, Energy, or Social Policy, the process is described as being about training highly employable, independent researchers, not specifically academics. The importance of students actively engaging in thinking proactively and broadly about careers and opportunities is incorporated from day one and then repeatedly returned to over the course of their degree, instead of focusing on careers only in years three or four. The emphasis is very much on thinking about the ‘options’ that the doctoral process and the skills and attributes this develops will open to students, rather than mutually exclusive academic or non-academic routes. Within the three Doctoral Training Alliance programmes, careers guidance is also tailored to the disciplines involved, alongside sessions on CVs and networking focused on different contexts.

<https://unialliance.ac.uk/dta/>

- **Doctoral Training Partnerships and Centres for Doctoral Training-Economic and Social Research Council (ESRC) and the Arts and Humanities Research Council (AHRC)**

Doctoral Training Partnerships (DTPs) and Centres for Doctoral Training (CDTs) such as those funded by the ESRC and AHRC have skills training and careers guidance embedded within their doctoral training approach.

ESRC’s guidelines for PGR training and development point to the need for students to receive a broad-based training, combining the development of research skills with the capabilities needed for employment in roles within

and beyond academia. In applying for funding, DTPs and CDTs are expected to set out how they will integrate the acquisition of these skills into their doctoral programmes and/or through enhanced opportunities for experiential learning. The guidelines include the requirement that DTPs and CDTs undertake annual training needs analysis for their funded PGR students.²⁵ This also highlights the need to consider transferable training and skills development alongside core training for research.²⁶

<https://esrc.ukri.org/skills-and-careers/doctoral-training/postgraduate-training-guidelines/>

AHRC guidelines are included in a Research Teaching Framework (RTF) for doctoral students. It is expected that universities provide the training that students need to complete a high-quality research project as well as for their wider development and that students engage in development activities beyond the immediate needs of their doctoral research. It recognises that students enter doctoral study with a diverse range of skills and experience and their ongoing needs will vary considerably and stresses the importance of a needs-based approach to student development, as well as an ongoing process of review and reflection to respond to any new needs as their studies progress.

<https://ahrc.ukri.org/skills/rtframeworks/>

- **Utrecht University**

The University provides comprehensive careers guidance and resources across the course of the doctorate and specific elements of the provision are aimed at PGR students at certain stages of study. For those near the end of their doctorate, there is 'PHACE' (PhD Activating Career Event). This is a two-day event designed to enable latter-stage PGR students to think more closely about their future career path. Topics covered include identifying individual strengths and boosting self-confidence, as well as more market and employment-specific skills such as 'debating and persuasion for professionals' and 'personal branding'. In giving information, they are also open about how many PGR students are able to successfully pursue an academic career.

<https://www.uu.nl/en/organisation/phd-candidates/phace>

<https://www.uu.nl/en/organisation/phd-candidates/phace/workshops-phace>

Utrecht's WORK2WORK (W2W) programme is compulsory for all doctoral candidates employed by Utrecht University and aims to prevent unemployment. If candidates have not found a job, this programme offers them re-employment coaching approximately 4 months before the official end date of their contract. It combines personal coaching with workshops to prepare students for the job market.

²⁵ ESRC, (2nd Edition, 2015), *ESRC Postgraduate Training and Development Guidelines 2015*, p. 4
²⁶ ESRC Postgraduate Training and Development Guidelines 2015, p. 6

<https://www.uu.nl/en/organisation/phd-candidates/phace/career-programmes-before-the-end-of-your-phd>

- **Imperial College London**

Imperial offers career planning workshops specifically designed for first year PGR students, as well as workshops on skills such as negotiation, motivation and independence, and networking. One of the Graduate School's flagship development courses is 'Finish Up and Move On' (FUMO), which is a two-day residential course for mid to late stage PhD and MD(Res) students, designed to focus on and develop the skills that they will need to complete their studies and successfully move into a career.

<http://www.imperial.ac.uk/study/pg/graduate-school/students/doctoral/professional-development/professional-progression/>

- **University of Manchester**

The Careers Service offers a year by year guide for PGR students, designed to help them progress their personal and career development over the course of their studies. More specific advice is given for first year, intermediate year(s), and final year PGR students, as well as offering an employability framework to help them target their individual activities.

<http://www.careers.manchester.ac.uk/postgraduates/year/>

1.2.2 What might make a difference?

- Access to careers guidance provision for PGR students from the earliest stages of their doctorate and throughout the doctoral process
- Use of tools such as the Researcher Development Framework to help ensure a targeted, appropriate programme of continuous careers development which complements an individual's academic development
- Supervisors acknowledging the importance of career development support for their students and enabling them to take up appropriate training and opportunities

1.3 Co-creation and support within the research community

If careers guidance events and resources are to have the most beneficial impact, PGR students need to actively engage with them and take ownership of their own career development over the course of their doctorate. As researchers, they can use their developing skills to explore the range of career options open to them and should be encouraged to do so. Frameworks such as The Concordat to Support the Career Development of Researchers acknowledge the important role that researchers themselves must play in their own development, through listing expectations on researchers, alongside those for institutions, funders, and managers of research staff.²⁷ In Vitae's survey of arts and humanities PGR students, however, just over 70% of respondents reported that they regularly devoted time to personal and professional development, of whom only 24% strongly agreed with the statement.²⁸ While time pressures can have an impact on PGR engagement with careers guidance, there are ways that PGR students can be incentivised to participate and play a more active role in their development.

The visibility and suitability of resources can prove to be a barrier to effective engagement if the range of guidance and events available within a university or department are not made clear to PGR students and their supervisors. Research conducted at the University of Oxford has found that the most popular and best-received careers events and resources were those which had been co-created with the current PGR community.²⁹ This applied both to events and resources that were developed centrally within the institution by the careers service, but also for those more subject-specific events organised within departments.

Conditions within the research environment and community can encourage or limit opportunities for such co-creation. A supportive research environment does not just impact on the academic aspects of the doctoral process. Academic measures of success and the levels of independence expected of PGR students in their doctoral research can, however, be counterproductive and even detrimental when it comes to their engaging with careers guidance and exploring potential career pathways.³⁰ Analysis of influences on PGR students suggests that when peers, supervisors, and other academics are thought to consider careers development a legitimate priority, it has an effect similar to giving current PGR students permission to engage in this activity.³¹

Where they exist, doctoral colleges and graduate schools can play a useful role by hosting balanced careers guidance resources and advice in a location recognised as being a key part of the institution's wider research environment. Closer work between academic departments and those with responsibility for PGR careers guidance can also help to bridge this gap, as well as supporting supervisors in knowing precisely where to direct their students for advice and to encouraging them to do so.

²⁷ Concordat Strategy Group (2019), *The Concordat to Support the Career Development of Researchers*, p. 7

²⁸ Vitae, Thouaille, 'One size does not fit all', p. 9

²⁹ Bray, R. and Shaw, R (June 2017), 'Supporting PhD students to stop postponing and start exploring career options', *Phoenix* Issue 151, 'Supporting Postgraduate Students', p. 11

³⁰ These views are expressed by Clare Jones, Senior Careers Advisor at the University of Nottingham, and based on her observations and experience of engagement with PGR students. Jones (June 2017) 'Highs and lows, smiles and tears', pp. 16-17

³¹ Bray and Shaw (June 2017), 'Supporting PhD students to stop postponing and start exploring career options', p. 11

The current PGR community within a department, faculty, or wider university offers a ready-made support network for discussion of matters such as career options, aspirations, and concerns. PGR cohorts can be very varied and those undertaking doctorates as mature students or completing professional doctorates as part of their own career development, can bring with them a wealth of experience of the labour market and working in different sectors. A recurring theme in the Postgraduate Research Experience Survey (PRES) is dissatisfaction with the opportunities PGR students have for discussion and interaction with their peers, as well as with the perceived lack of opportunities for involvement with the wider research community.³² Events that bring these groups together are, therefore, important for PGR satisfaction and wellbeing, as well as providing opportunities to encourage engagement with careers guidance.

1.3.1 Examples of co-creation in careers guidance

- **Newcastle University**

The 2017 careers and employability conference ‘Researching our Future: Where next on our career journey?’ was co-created by the university’s Careers Service, academic staff, and current PGR students.³³ Importantly, it was the PGR students themselves who took the lead on designing and creating the conference, using feedback from a survey of the PGR population within the Faculty of Humanities and Social Sciences on the employment areas, from all sectors, that most interested them, to inform the content of the conference.³⁴ Feedback from the event indicated that participants had a feeling of community, as well as appreciating the opportunity to meet with peers, network, and expand their horizons.³⁵

The idea for PGR students to take the lead in organisation did raise initial concerns from supervisors, due to the increased workload that the conference would entail. Academic staff worked alongside the lead PGR team to help them identify potential speakers and to support two funding applications for the conference.³⁶

<https://conferences.ncl.ac.uk/researchingourfutures/>

- **Queen’s University Belfast**

Official recognition can provide a useful incentive for PGR students to take their personal and professional development seriously from the start of their doctorate. Queen’s University Belfast offers Researcher Plus and Graduate Plus schemes to provide this recognition. Examples of activities undertaken as part of the programmes include substantive committee involvement, work shadowing and employer visits, conference and event organisation, and peer mentoring. PGR students who successfully

³² Neves (2018), *2018 Postgraduate Research Experience Survey*, p. 12

³³ Berry, H., Hartley, F., Nolan, J. and Peligra, C. (June 2017), ‘Engaging PGRs with careers support services: A collaborative approach’, in *Phoenix*, Issue 151, ‘Supporting Postgraduate Students’, pp. 14-15

³⁴ Berry, Hartley, Nolan and Peligra (June 2017), ‘Engaging PGRs with careers support services’, p. 15

³⁵ Berry, Hartley, Nolan and Peligra (June 2017), ‘Engaging PGRs with careers support services’, p. 15

³⁶ Berry, Hartley, Nolan and Peligra (June 2017), ‘Engaging PGRs with careers support services’, pp. 14-15

demonstrate engagement with their skills development gain recognition for this when they graduate.

<http://www.qub.ac.uk/graduate-school/development/researcher-plus/>

- **University of Glasgow**

The University of Glasgow has a PGR blog which is written by current PGR students and focused on the issues that most affect them. As well as hosting information specific to life as a PGR at the university, posts cover a range of issues including careers post-doctorate. The advice and guidance offered, as well as the format of the blog, is accessible, open, and frank.

<https://uofgpgrblog.com/>

On careers specifically:

<https://uofgpgrblog.com/pgrblog/2019/7/17/embracing-careers-outside-of-academia>

<https://uofgpgrblog.com/pgrblog/2019/2/1/alumni-advice-from-your-degree-to-your-dream-career>

1.3.2 The role of supervisors

Supervisors can find themselves in the difficult position of supporting the academic efforts and development of their candidates, while also being aware of the scarcity of permanent academic jobs and the tendency towards casualisation of academic contracts, particularly for early career researchers. At the same time, supervisors have a great deal of influence on PGR students when it comes to attitudes around careers and development and studies have suggested that supervision is the single most important and lasting influence on a PGR graduates' perception of the value of their doctorate.³⁷ Encouraging and supporting candidates to explore career options and engage in personal and career development as part of the doctoral process and their wider development as researchers can have a positive effect. As well as helping to reduce their students' levels of anxiety around what happens after the doctorate, knowing that their students are putting themselves in a good position to find a rewarding career after graduation should also be a source of satisfaction to supervisors.

As academics themselves, however, supervisors may not be best placed to offer guidance on non-academic careers. In addition, supervisors may struggle to make time to give proper attention to this aspect of the doctoral process. Good supervision should, however, include helping PGR students to access suitable careers guidance and supporting them in doing so. Supervisors can make themselves aware of the various resources and provision offered by their university and direct candidates to appropriate sources of support and information. Careers services, or those with responsibility for PGR careers

³⁷ Bryan, B. and Guccione, K. (2018), 'Was it worth it? A qualitative exploration into graduate perceptions of doctoral value', *Higher Education Research and Development*, 37:6, pp. 1132-1135

guidance, can assist by making it clear what provision they offer that is specifically designed for PGR students.

- **UKCGE's Good Supervisory Practice Framework**

Supervisors undoubtedly have a role to play in how PGR students approach activities such as career development over the course of their studies. UKCGE's Good Supervisory Practice Framework has been developed to support and encourage good practice in supervision across the higher education sector and one of its criteria for good practice is 'supporting candidates' personal, professional and career development'. As well as helping to support candidates, the framework offers a route to official recognition through the Research Supervisor Recognition Programme, recognising that research supervision is an increasingly complex activity, but one in need of greater support and with limited training and development opportunities currently available at many universities.

For the Framework: <https://supervision.ukcge.ac.uk/good-supervisory-practice-framework/>

For the Recognition Programme: <https://supervision.ukcge.ac.uk/>

- **Concordat to Support the Career Development of Researchers**

The Concordat outlines expectations of managers of researchers or, in the case of PGR students, supervisors, requiring them to engage in regular career development discussions with their students and support them to explore a variety of pathways. This is reinforced by obligations on institutions to provide training, structured support, and time for managers or supervisors to engage in meaningful career development reviews with their students.³⁸

<https://www.vitae.ac.uk/policy/concordat/full>

Some digital tools have also been developed which can help both supervisors and their students engage with the career development process, track engagement, and set new goals.

- **Inkpath**

This is a skills and development platform which is already employed by a number of universities and which allows students to track and manage their professional and career development. The app highlights upcoming

³⁸ Concordat Strategy Group, *The Concordat to Support the Career Development of Researchers*, pp. 6-7. Especially Principle for Institutions no. 2

relevant training activities and programme which the student is eligible to attend or make use of, as well as keeping an accurate record of what activities have been completed. Additional functionality enables supervisors to set up links with their students through the platform in order to monitor the progress of their development, recommend events, or create a development plan which can be made specific to careers or other aspects of development. The platform is intuitive to use and is optimised for a range of devices, meaning that it has wide accessibility.

<https://www.inkpath.co.uk/>

1.3.3 What might make a difference?

- Offering opportunities for PGR students to be co-creators of careers guidance resources and events aimed at their cohort
- Enabling PGR students to take ownership of their own career development from the start of their doctorate, helping to minimise the overall impact on their time and maximising their potential for meaningful engagement and reflection
- Those with responsibility for PGR student careers guidance, departments, and (where appropriate) doctoral colleges or graduate schools working closely together to ensure that supervisors and PGR students are aware of the range of careers guidance and provision available
- Academic departments and supervisors fostering research environments which support active engagement with careers guidance and development activities, irrespective of whether they relate to careers within or beyond academia. This could include more informal opportunities or spaces for PGR students to meet and discuss careers and other issues
- Universities ensuring supervisors are suitably trained and supported to provide the best all round support and guidance to their students, including knowing where to direct them for the most suitable careers advice and guidance

1.4 Accessibility

Not all PGR students are full-time, funded, or living close to their university. They will not always be able to engage with face-to-face careers guidance or attend careers events. Whatever their mode of study, personal situation, or caring responsibilities, the full cohort of PGR students should be able to access careers guidance and resources. As indicated above, integrating careers guidance provision into the doctoral process is also key to widening accessibility across a PGR cohort. The numbers support diversification of careers guidance provision and greater consideration of the accessibility and sensitivity of resources and events offered, to better represent and accommodate students from different modes of study, ethnic backgrounds, age groups or those reporting a disability.

A significant proportion of the PGR student community undertake their doctoral research on a part-time basis. HESA student record data for students registered for a research degree in 2018/19 indicates that 38% of students on arts, humanities, or social science courses were studying part-time. For Education, the figure is as high as 68% of students, while for courses within Historical and Philosophical studies or within Social Studies, the figures are 35% and 28% respectively.³⁹ In the most recent PRES report, 12% of PGR students across all subject areas considered themselves to be distance learners.⁴⁰ These examples represent a significant proportion of the PGR population.

Accessibility considerations are also important in engaging PGR students of all ethnicities, as well as from different modes of study. While they represented only 2% of total PGR students in HESA student data for 2018/19 with, 45% of all Black students enrolled on doctoral programmes were enrolled on a part-time basis, making them more likely to also be self-funded.⁴¹ Studies have shown that Black students encounter a disproportionate lack of representation across all areas of provision, including careers guidance.⁴² Numbers of students undertaking degrees at Masters level or above have, however, increased across all ethnic groups, but particularly so in BAME (Black, Asian and minority ethnic) groups, with Indian men and women showing the greatest increases.⁴³ As BAME groups in particular encounter a lack of representation at PGR level, in academia, and across senior levels in the wider workforce, careers services and those with responsibility for PGR careers guidance should aim to engage with these groups more directly and seek out expertise from specific communities, as well as from specific employment sectors or disciplinary backgrounds to ensure that they are better represented in careers guidance resources and provision.⁴⁴ Co-creation with members of these and other underrepresented groups can help ensure that resources and events are suitably tailored to them and should encourage greater levels of participation.

³⁹ HESA, 'HE student enrolments by subject of study and domicile [Academic year 2018/19]', source: HESA, retrieved from www.hesa.ac.uk under CC-BY-4.0 licence

⁴⁰ Williams, 2019 *Postgraduate Research Experience Survey*, p. 32

⁴¹ Williams, P., Bath, S., Arday, J., and Lewis, C. (2019), *The Broken Pipeline: Barriers to Black PhD Students Accessing Research Council Funding*, Leading Routes, pp. 3 & 5, citing Arday j. (2017), 'Exploring black and minority ethnic (BME) doctoral students' perceptions of an academic career', University and College Union, p. 11; HESA, 'HE student enrolments by personal characteristics [Academic years 2017/18 and 2018/19]', source: HESA, retrieved from www.hesa.ac.uk under CC-BY-4.0 licence

⁴² Miller, A. (2019), 'Poor careers advice at university hits minority students hardest', *The Guardian*, Friday 29 November 2019

⁴³ Henehan, K. and Rose, H. (July 2018), *Opportunities Knocked? Exploring pay penalties among the UK's ethnic minorities*, Resolution Foundation, p. 26

⁴⁴ Miller (2019), 'Poor careers advice at university hits minority students hardest'

HESA student record data for the academic year 2018/19 shows that 43% of the total PGR student cohort was aged 30 or over.⁴⁵ Students in this age group are more likely to have caring responsibilities for young children than other age groups. These responsibilities are more likely to impact women PGR students, as globally women are more likely to act as carers.⁴⁶ This should be considered when assessing the accessibility of resources and guidance. According to PRES, of those who had considered leaving their doctorate, difficulty balancing commitments accounted for 13% of responses, second only to family, health, or personal problems at 15%.⁴⁷ This may mean that timing of events, for example outside normal office hours, is an important consideration for accessibility.

Based on PRES survey evidence, disabled students are much less likely to be satisfied with different aspects of their doctorate overall, as well as more likely to have considered leaving.⁴⁸ With 8% of PGR students reporting a disability in the most recent PRES survey, consideration should also be given to physical and audio-visual accessibility and this is an area where clear positive gains can be made to support this section of the PGR community across the sector.⁴⁹

1.4.1 Examples of programmes and resources with features that make them accessible to the broadest range of PGR students

- **Career Management for Early Career Academic Researchers**

‘Career Management for Early Career Academic Researchers’ is a Massive Open Online Course (MOOC), developed and run by experienced careers advisors at the Universities of Glasgow, Edinburgh, and Sheffield. It is available to researchers at both PGR and postdoctoral level. The course addresses the challenging questions that almost all early career researchers ask themselves, such as whether they should pursue further academic research; what skills would help them to progress; and what their career options beyond academia might be. Participants can actively consider and reflect on what is important to them in considering their future career pathway, as well as finding out about a variety of careers and identifying their own specific skills and attributes that employers might value. As it is an online, asynchronous, course, PGR students can fit participation around their other commitments, at a time that suits them.

<https://www.futurelearn.com/courses/career-management>

- **Imperial College London**

Imperial hold lunchtime webinars as part of their careers guidance resources for PGR students. These webinars are conducted with

⁴⁵ HESA, ‘HE student enrolments by personal characteristics [Academic year 2018/19]’, Source: HESA, retrieved from www.hesa.ac.uk under CC-BY-4.0 licence

⁴⁶ Addati, L., Cattaneo, U., Esquivel, V. and Valarino, I. (2018), *Care Work and Care Jobs for the Future of Decent Work*, International Labour Organisation; Metcalf, J. and Day, E. (2016), *Equality and Status of Women in Research. Survey Report for the Global Research Council 2016 Annual Meeting*. The Careers Research and Advisory Centre (CRAC) Limited

⁴⁷ Williams (2019), *2019 Postgraduate Research Experience Survey*, p. 28

⁴⁸ Neves, *2018 Postgraduate Research Experience Survey*, pp. 28 and 31

⁴⁹ Williams, *2019 Postgraduate Research Experience Survey*, p. 28

individuals and employers in various professional spheres, including former alumni of the institution. The webinars themselves are facilitated through Adobe Connect and have the additional benefit of being readily accessible to part-time and distance learners. Students with log in details can access the webinar from any location and ask the individual about their area of employment. The individuals themselves are required to give up just an hour of their own time, over a lunchbreak, and the resource does not, therefore, require a significant time or travel commitment on their part. It offers a time- and cost-effective way of providing engagement with industry and employers in a way that is accessible to all PGR students irrespective of their mode of study or day-time location.

<https://www.imperial.ac.uk/study/pg/graduate-school/students/doctoral/professional-development/webinars/>

Networks and partnerships between universities can facilitate sharing of resources, as well as widening the number of locations at which students can access events or guidance.

- **Bloomsbury Postgraduate Skills Network**

This network of universities located in and around the Bloomsbury area of London allows PGR students across participating member institutions to attend training courses and workshops on offer at any of the member institutions. As well as opening up a wider range of available training, with locations spread across London, there may be additional benefit to students commuting from different areas. Member institutions are: Birkbeck, the London School of Hygiene and Tropical Medicine, LSE, King's College London, City University London, the Royal Veterinary College, University College London, the School of Advanced Study, and SOAS. Courses offered are also aligned to Vitae's Researcher Development Framework.

<https://doctoral-skills.ucl.ac.uk/bloomsbury/>

- **GW4 Alliance**

This collaborative research community is based in the south west of the UK and has institutional ties across all areas of research activity. As with the Bloomsbury network, PGR students registered at any of the partner universities are able to access training and events any of the four alliance institutions. Members are: Cardiff University, the University of Bath, the University of Bristol, and the University of Exeter.

<http://gw4.ac.uk/>

- **White Rose Consortium**

This is a strategic partnership between the universities of Leeds, Sheffield, and York. It advertises itself as facilitating and promoting collaboration in research, teaching and knowledge exchange, through a dedicated White Rose team located within each of the three participating institutions, bringing together expertise and resources from across the participating institutions.

As well as sharing resources and collaborating in programmes, the Consortium also runs three Doctoral Training Partnerships for PGR students: the White Rose Social Science DTP, accredited by the ESRC; the White Rose DTP in Mechanistic Biology, with investment from the Biotechnology and Biological Sciences Research Council (BBSRC); and the White Rose College of the Arts and Humanities (WRoCAH), which is supported by an AHRC award. PGR students who are part of the White Rose Social Science DTP are also able to access Career Development and Transferable Skills Training at the partner universities of Leeds, Sheffield, York, Hull, Manchester Metropolitan University, Sheffield Hallam University, and shortly also the University of Bradford. As well as developing research skills, the White Rose College of the Arts and Humanities aims to help PGR students ‘... develop their employability skills with a cohort, learning and networking with each other in a unique and tailored training programme.’

<https://whiterose.ac.uk/>

White Rose Social Science DTP: <https://wrntp.ac.uk/>

White Rose College of the Arts and Humanities: <https://wrocah.ac.uk/>

- **Doctoral Training Partnerships**

ESRC sets out a flexible portfolio of training for its funded social science researchers, covering three-, four-, and five-year platforms, with all training available on a full- or part-time basis. AHRC also provide flexibility in the duration of doctoral support and the types of opportunities which are open to individuals and student cohorts. This enables training to suit different disciplines and doctoral programme structures which in turn means that it is possible to better tailor training to suit the needs of individual researchers in terms of timing. Flexible modes of delivering training are also encouraged.⁵⁰

<https://esrc.ukri.org/skills-and-careers/doctoral-training/postgraduate-training-guidelines/>

<https://ahrc.ukri.org/documents/guides/ahrc-training-grant-funding-guide/>

Evidence gathered by AHRC on their collaborative studentships has indicated that participating students were more likely to be older and to

have had a career before starting their doctorate, more so than was the case for their standard funded studentships.⁵¹ They also noted the higher number of female students on this collaborative route.⁵² In both instances, the collaborative and less 'highly academic' nature of the project was seen to be an attraction, as well as fitting closer with future career aspirations.

1.4.2 What might make a difference?

- Universities working with those with responsibility for PGR careers guidance and supervisors to ensure that the different needs and modes of study of their PGR cohort(s) are fully understood and taken into account when designing careers guidance resources or events
- Offering a variety of ways to engage with this guidance, including web-based resources and day-time events, to ensure that all PGR students are able to access this support
- Ensuring that equality, diversity, and inclusion issues are a central consideration when designing careers guidance provision. Particular attention should be paid to underrepresented groups within the PGR community, such as BAME students, disabled students, and parents and others with caring responsibilities

⁵¹ Hill, J.D. and Meek, A. (May 2019), *AHRC-funded collaborative studentships: Their nature and impact on partners, subject areas and students*, AHRC, UKRI and The British Museum, pp. 18-19

⁵² Hill and Meek, *AHRC-funded collaborative studentships*, p. 19

1.5 Alumni networks and engaging with employers and industry

Just as current PGR students and wider research community can provide a ready-made support network, so previous doctoral graduates can also be a valuable source of careers guidance and offer examples of a variety of pathways. Case studies derived from this group, as well as face to face interactions through webinars or talks at careers events can offer relatable examples to current PGR students. The case studies of doctoral graduates collected by the British Academy and the variety of pathways that they represent demonstrate the wealth of experience and advice that they have to offer. Those who have already made the transition from academia into other careers are also well placed to offer advice to PGR students thinking about making this step but who may have concerns about how this would be perceived by supervisors or others within their research environment. Maintaining good contacts with PGR alumni can also help to improve the data available to an institution and to the sector about the variety of career pathways that PGR students take after graduation and in the years following, which can help to inform the development of careers guidance which is more relevant to likely destinations of current PGR students.

1.5.1 Examples of PGR alumni networks and data collection

- **University of Nottingham**

Nottingham's Careers and Employability Service hosts a number of video interviews with PGR alumni on their website. In these, alumni discuss their career pathways since graduating with their doctorates. One interview discusses why the phrase 'leaving academia' is outdated and suggests some alternatives.

<https://www.nottingham.ac.uk/careers/phd-students/index.aspx>

https://mediaspace.nottingham.ac.uk/media/Dr+Alasdair+Taylor%2C+PhD+alumnus+-+Leaving+academiaF/1_70fhk0gp

- **Queen Mary, University of London**

Through their Careers and Enterprises pages, Queen Mary host a large selection of career case studies from PGR alumni, covering a range of discipline backgrounds and pathways both within and beyond academia. The profiles themselves explore the individual's current career position, as well as discussing how they have made use of their doctorate, which is particularly useful for any current PGR students thinking about their future career options and wanting to know how they can best utilise their skills in a variety of roles.

<http://www.careers.qmul.ac.uk/researchers/profiles/>

- **Research Careers**

This blog hosts profiles of individuals who have made the career transition from academia to industry and is edited by current DPhil students and researchers connected to Oxford University. Each profile addresses questions around skills, the nature of that individual's pathway, preconceptions, and what a normal day in their area of employment might look like.

<http://research-careers.org/>

A university's network of PGR alumni also offers contacts with various industries and employers. Engagement with employers and industry is an increasingly common feature of undergraduate and taught postgraduate careers guidance provision but, while acknowledging the range of pathways that PGR students are suited to and are likely to take, it is important that this is also a regular feature of PGR careers guidance.

The UK has ambitions to increase research and development capacity and this will not only require the support and development of well-rounded researchers across a wide range of disciplines, but for industry and employers to understand and appreciate how to make best use of them in various roles. Placements are becoming a more common feature of career development for PGR students and may be integrated into doctoral courses. Such engagement is widely recognised as being an important employability exercise, facilitating knowledge exchange where industry can benefit from the expertise of researchers and their approaches to different tasks and questions, while students gain valuable work experience and the opportunity to further develop transferable skills.⁵³

PGR graduates from arts, humanities, and social science disciplines have been shown to be significantly less likely to have responsibility for supervising the work of others as part of their employment than PGR graduates in STEM disciplines.⁵⁴ Developing skills in areas such as leadership, in partnership with industry, may help to provide additional experience to close this gap. Leadership experience is valuable for a range of careers, including academia, meaning that it is a readily transferable skill with direct relevance to a PGR's development as a researcher.

In responses to the 2018 PRES, however, only 10% of the total respondents reported that they had taken part in a placement or internship, down from 11% the previous year.⁵⁵ It remains the case that, aside from funded doctoral training partnerships, such interactions are much less common in arts, humanities, and social science disciplines than for STEM disciplines. 46% PGR graduates surveyed as part of the study of occupations and skills of arts, humanities, and social science graduates and postgraduates by Warwick University stated that any work experience or placement undertaken as part of their qualification was an important factor in getting their main job.⁵⁶ PGR

⁵³ Benson, V. (2017), 'Can industry placements help PhDs find jobs?', *Phoenix* Issue 151, 'Supporting Postgraduate Students', pp. 18-19; Bryan, and Guccione, 'Was it worth it?', pp. 1124-1125

⁵⁴ Lyonette, Hunt and Baldauf, *Occupations and skills*, section 5.4.1, pp. 72-73

⁵⁵ Neves, *2018 Postgraduate Research Experience Survey*, p. 18. This data does not feature in the PRES report for 2019

⁵⁶ Lyonette, Hunt and Baldauf, *Occupations and skills*, section 5.6, Table 21, p. 76

respondents also reported that they had been turned down for jobs in the past because of a lack of relevant experiences, as opposed to any lack of skills on their part.⁵⁷ Many employers view sector experience as important or even a requirement for positions and should therefore be seen as a vital consideration to support PGR careers development and future employability.

1.5.2 Examples of engagement with employers and industry

- **University of Edinburgh**

The 'Employ.ed for PhDs' programme arranges part-time paid internships to enable PGR students across disciplines to enhance their skills and practical experience. The programme is designed to fit around existing research commitments and provides information to prospective employers, highlighting the benefits and skills that PGR students can bring to their sector. It also features interviews with managers previously involved with the programme, discussing the impact that PGR interns have had.

<https://www.ed.ac.uk/careers/looking-for-work/internships/employed/employ-ed-for-phds>

- **University Alliance Doctoral Training Alliance**

Previous graduates from these programmes are brought back to talk to new students about their experiences and subsequent career pathways. Feedback from students on the programmes made it clear that they wanted to hear directly from those who had been in their position and had been through the programme themselves. This desire to hear and learn from those in a similar position, or who have recently been so, is also reflected in the popularity of peer-to-peer support throughout the programmes, with later stage PGR students discussing their experiences and offering advice to newer students. As many as 80% of the Social Policy Doctoral Training Alliance PGR cohort can be professional practitioners, returning to research within their area of expertise and this additional experience can provide valuable external insight to other students. The Energy Doctoral Training Alliance also makes use of a LinkedIn group area as a forum for sharing knowledge and ideas between students, supervisors, and industry partners.

<https://unialliance.ac.uk/dta/>

- **University of Reading**

As part of the training and development offered by its Graduate School, Reading offers a Leadership Programme for PGR students. The three-day

programme takes place during the summer and offers training in leadership, designed in partnership with Henley Business School.

<http://www.reading.ac.uk/graduateschool/training-and-development/gsl-leadership-programme.aspx>

- **Doctoral Training Partnerships and Studentships (ESRC and AHRC)**

UKRI's vision for collaborative training it is to "... provide doctoral students with a first-rate, challenging research training experience, within the context of a mutually beneficial research collaboration between academic and partner organisations in the private, public and civil society sectors", with the expectation that those students benefitting from this broad training will be research leaders of the future in a variety of sectors.⁵⁸

ESRC require DTPs and CDTs to provide opportunities for students to collaborate and engage with non-academic organisations and have a target that 30% of each cohort be involved in some form of non-academic collaboration, whether in the form of collaborative studentships, internships, or placements. This provides an important opportunity for students to access training, facilities, and expertise not available in an academic setting alone and also gives them opportunity to further develop their broader transferable skills and awareness of employment opportunities in a range of sectors.

<https://esrc.ukri.org/skills-and-careers/doctoral-training/postgraduate-training-guidelines/>

AHRC studentships awarded through the Collaborative Doctoral Partnerships are similar to the industry-based or industry-supported model more common in STEM.⁵⁹ Current collaborations include major cultural and heritage organisations such as the British Library and National Museum of Scotland, who partner with universities to support students to undertake collaborative research projects. This compliments provision in the DTPs and CDTs which offer a range of opportunities for students to collaborate and engage with non-academic organisations. This represents a significant commitment from all parties concerned, in both time and resources, but this effort is rewarded by the impact across exhibitions, conservation projects, publications, collections and other knowledge.⁶⁰ The PGR students themselves benefit from developing their research skills through their topic, but also from the embedded training and real-world experience of a non-higher education industry environment and the networks, contacts, and career options that this provides.⁶¹

<https://ahrc.ukri.org/skills/phdstudents/>

⁵⁸ Research Councils UK (UKRI), *Joint Vision for Collaborative Training*

⁵⁹ Hill and Meek, *AHRC-funded collaborative studentships*, p. 5

⁶⁰ Hill and Meek, *AHRC-funded collaborative studentships*, p. 13

⁶¹ Hill and Meek, *AHRC-funded collaborative studentships*, p. 13

1.5.3 What might make a difference?

- Maintaining good links with PGR alumni to help build networks and examples on which current PGR students can draw. This will also help facilitate better sector-wide longitudinal data collection on PGR graduate destinations by improving participation in sector measures such as the Graduate Outcomes Survey
- Creating a range of ways in which PGR students can engage with industry and employers, including face to face at careers events, through relevant internships, or more formal collaborative partnerships

Conclusions

As the number of PGR students across UK universities increases, there is an accompanying responsibility to ensure that they are well equipped to make the most of their skills and attributes and succeed after graduation, whether they choose to enter academia or pursue a different path. Both pathways should be acknowledged as being equally valid and balanced guidance should be offered. To best support PGR students, universities need to work with and support careers services or those with responsibility for PGR careers guidance, departments, supervisors, and PGR students themselves to offer careers guidance that is tailored to this cohort, just as they provide tailored information for those on taught degrees.

Pursuing an academic career is not the only reason for undertaking a doctorate nor, increasingly, is it the most likely outcome. Careers-related anxiety in an increasingly competitive and market-driven academic sector is one of many factors contributing to low personal wellbeing scores being reported for PGR students. In successfully completing a doctorate, PGR graduates have demonstrated a high degree of resilience and determination and this prepares them for a wide variety of roles in academia and beyond. In not offering opportunities for them to explore and experience a range of non-academic environments or in failing to help PGR students and employers understand and appreciate what each have to offer, we may be letting a lot of potential go to waste. While there may be fewer sector-wide incentives for the provision of tailored, balanced careers guidance for PGR students, PRES provides plenty of evidence for the positive impact this would have on PGR students.

As this document sets out, there are many helpful examples of careers guidance for PGR students being offered at universities across the UK. Highlighting these examples is intended to offer further inspiration to careers services and those with responsibility for PGR careers guidance, as well as act as an incentive to universities, departments, supervisors and, importantly, PGR students themselves.

Appropriate timing and competing commitments may be the main barriers to PGR students engaging with careers guidance and development. Clearly a PGR student's primary commitment is to their doctorate, but this need not come at the expense of their broader development and long-term prospects. Integrating careers guidance and development into the doctoral process serves to encourage and enable engagement. This can also help to minimise the anxiety that can be induced by graduating without a clear idea of options or next steps.

Evidence from experienced careers professionals has shown that PGR students are more likely to actively engage with careers guidance events and resources when they have played a role in their development. A research environment which encourages involvement in such activities outside of the strictly academic sphere is also an important factor. Supervisors have an essential role to play in encouraging and supporting their students to engage in career development, due to the particular nature of the student-supervisor relationship at doctoral level. It is important, however, that universities and

their departments also recognise the need to support supervisors in this role. Good communication between the relevant careers services or those with responsibility for PGR careers guidance and departments can help facilitate this.

PGR students are a diverse population, with varied characteristics requiring different forms of careers guidance, resources and events. Through wider representation and inclusion, careers guidance provision can also positively contribute to greater PGR satisfaction and wellbeing. In order to most appropriately design and deliver careers guidance, departments and universities need to have a good understanding of the makeup of their PGR cohort and how their aims and motivations develop over the course of their doctorate.

A lack of longitudinal data on PGR student destinations and pathways is, however, a sector-wide issue. Individual universities have an important role to play in expanding the available data and this will be of benefit to their ability to offer appropriate careers guidance. Alumni of doctoral degree programmes, through their various career pathways and ability to relate to the experience of current PGR students can provide an invaluable source of experience and a personal touch to careers guidance. Providing good, balanced, accessible careers guidance, events and resources tailored to PGR students requires an investment of time and funding from universities. In the long term, however, this investment can be self-sustaining, as it will create a ready supply of successful PGR alumni who can offer a good source of future information as well as routes for industry and employer engagement.

PGR graduates are highly trained, hardworking, innovative and inquisitive. Enabling them to explore and succeed in a variety of career pathways brings positive impacts for academic departments, universities, society and the wider economy, as well as to the individuals themselves. As one PGR graduate who contributed to the British Academy's PGR pathway case studies put it, "... the country at large would also reap dividends from this still largely untapped supply of highly-skilled and capable individuals."⁶²

The examples highlighted in this guide suggest some key actions that can make a difference to the effectiveness of careers guidance for PGR students.

Actions

What can universities do to make a difference?

- Assign adequate resources to the development of PGR-specific careers guidance provision which is suitable for the needs and aspirations of the PGR student cohort in their institution
- Work with those with responsibility for PGR student careers guidance, academic departments, and supervisors to ensure that PGR students can access careers guidance provision from the earliest stages of their doctorate and throughout the doctoral process
- Enable PGR students to take ownership of their own career development from the start of their doctorate, helping to maximise the overall impact on their time and maximising their potential for meaningful engagement and reflection
- Ensure that supervisors are suitably trained and supported to provide the best all round support and guidance to their students, including knowing where to direct them for the most suitable careers advice and guidance
- Work with those with responsibility for PGR student careers guidance and supervisors to ensure that the different needs and modes of study of their PGR cohort(s) are fully understood and taken into account when designing careers guidance resources or events
- Maintain good links with PGR alumni to help build networks and examples on which current PGR students can draw. This will also help facilitate better sector-wide longitudinal data collection on PGR graduate destinations by improving participation in sector measures such as the Graduate Outcomes Survey

What can careers services and those with responsibility for delivering PGR careers guidance do to make a difference?

- Recognise differences between subject areas and the range of particular skills which they develop and hone when providing careers guidance or offering advice at either departmental or institutional level
- Offer rounded and balanced careers guidance on careers both within and beyond academia, meaning that PGR students are better informed and better prepared with a greater range of choices for life after graduation, even though an academic career may be the primary motivation for many
- Offer opportunities for PGR students to become co-creators in the development of careers guidance resources and events aimed at their cohort

- Work with academic departments, and (where appropriate) doctoral colleges or graduate schools, to ensure that supervisors and PGR students are fully aware of the range of careers guidance and provision available
- Create a range of ways in which PGR students can engage with industry and employers, including face to face at careers events, through relevant internships, or more formal collaborative partnerships
- Ensure that equality, diversity, and inclusion issues are a central consideration when designing careers guidance provision. Particular attention should be paid to underrepresented groups within the PGR community such as BAME students, disabled students, and parents and others with caring responsibilities

What can academic departments do to make a difference?

- Work with supervisors to foster research environments which support active engagement with careers guidance and development activities related to a variety of career pathways; including offering more informal spaces or opportunities for PGR students to meet and discuss careers and other issues

What can supervisors do to make a difference?

- Work with those with responsibility for PGR careers guidance to make use of tools such as the Researcher Development Framework to help ensure a targeted, appropriate programme of continuous careers development which compliments an individual's academic development
- Acknowledge the importance of career development support for their students and enable them to take up appropriate training opportunities

What can PGR students do to make a difference?

- Take ownership of their career development from the start of their doctorate, helping to minimise the overall impact on their time and maximising their potential for meaningful engagement and reflection

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