# Doctoral Skills Training

# Guidance for Doctoral Researchers and Supervisors

## Context

All doctoral researchers at Sheffield Hallam University will have the opportunity to develop a range of research, personal and professional skills during the course of their programme. Transferable skills training as a key component of undertaking a PhD or professional doctorate is required by the university regulator, expected by research funders, and promoted by the University as part of its commitment to 'education for employment'.

## Sheffield Hallam's Approach

Sheffield Hallam recognises that all doctoral researchers arrive at the start of their programme with different experiences and career plans. Therefore, doctoral skills training is, as far as possible, needs-based and individually-tailored. Rather than being required to complete a set training programme, each doctoral researcher's development needs are identified and jointly agreed with their supervisory team at the start of the degree; and these are regularly reviewed and updated as appropriate.

## The University's Requirements

There are three compulsory elements of doctoral skills training at Sheffield Hallam. These are for the doctoral researcher to complete:

1. A development needs analysis, and agree this with their supervisory team;
2. The required research ethics training (Epigeum online 'Becoming an ethical researcher’ and ‘Research ethics in practice’) – further information via [Research Ethics and Integrity on the doctoral school blog](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/research-ethics-and-integrity/)
3. Any discipline-specific research methods courses requisite for the programme

Beyond these minimum requirements, doctoral researchers must also 'satisfactorily engage' in addressing the other needs identified in their development needs analysis. This may be virtually nothing, or a comprehensive development programme, depending on the previous experience and career plans of the doctoral researcher. Essentially, this involves addressing any significant gaps that were determined to exist between current skills level and the level required, to enable successful completion of the research project and equip the doctoral researcher for their intended career pathway.

### Development Needs Analysis

Development needs analysis (DNA) should be undertaken alongside a professional standards framework of the knowledge, behaviours and attributes of excellent practitioners. UK universities use [Vitae's Researcher Development Framework (RDF)](https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework) to help researchers articulate their skills and provide a common language for understanding and communicating their capabilities.

The RDF helps doctoral researchers undertake a skills audit against 63 criteria, which capture the characteristics of excellent researchers. This enables identification of areas of strength and those in need of development.

In the RDF, each criterion (descriptor) has up to five levels (phases) of competence. As an approximate guide, phase 1 is the level new doctoral researchers should be looking to ensure they are at in all the key descriptors relevant to their research, phases 2-3 are where they should be progressing to toward the end of their study and into postdocs, and phases 4-5 are more aspirational, describing senior academics.

For each descriptor, doctoral researchers should self-assess whether they have achieved a phase using the guidance provided in the RDF. If they have not, they can add the action(s) they think they need to undertake to feel they have achieved it. This will form their development plan. Once they have achieved it, they can add evidence.

It is appreciated that, due to its size, the RDF can initially appear overwhelming. It is therefore suggested that doctoral researchers attempt their DNA in bite-sized portions - focusing on a few areas at a time. As there are 63 in total, eight descriptors per week over an eight week period is recommended.

The following areas are suggested to be attempted first (from the 'Getting Started in Research' lens):

A1 - Subject knowledge; Information seeking

A2 - Critical thinking; Problem solving

A3 - Inquiring mind

B1 - Perseverance; Self-reflection

B2 - Preparation and prioritisation; Time management

B3 - Career management

C2 - Project planning and delivery

D2 - Communication methods

Further information on each of the 63 descriptors can be found on the Vitae website (please register with your shu.ac.uk email address to access full member content). [Professional Development Advice Sheets](https://www.vitae.ac.uk/researchers-professional-development/professional-development-advice-sheets)

The completed DNA and action plan documents provide summaries, both for users and to inform discussions with supervisors.

### Personal Development Planning

A DNA should be used to produce a bespoke personal development plan. In the DNA, the level doctoral researchers assess themselves to be at is not necessarily important. What is important are the gaps between where they are and where they need to be.

Further action and evidence examples can be found on the Vitae website (please register with your shu.ac.uk email address to access full member content).

[Action and Evidence examples](https://www.vitae.ac.uk/researchers-professional-development/action-and-evidence-examples)

### Accessing Development

Information on development activities and resources can be found on the University's: [Doctoral School blog site](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/)

Development available for doctoral researchers includes:

* Doctoral Skills Training relating to Communication Skills, Research Data Management, Academic Writing Skills and Doctoral Viva
* [MRes Social Science modules](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/research-methods/)
* Research Institute based / discipline-focussed training
* [Teaching and learning courses](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/teaching-skills/) (including Teaching Skills for Doctoral Students / the PGR Teaching Scheme)
* Library research support sessions
* [English for your Doctorate](https://students.shu.ac.uk/shuspacecontent/languages/university-english-scheme-ues)
* Career Service consultations
* Online courses and resources covering: research skills, research integrity, research leadership, statistical methods and personal effectiveness

Where possible, details of these sessions and contacts have been provided on the Doctoral School Blog and Research Degrees Blackboard site (under the 'Doctoral Skills Training' tab).

### Recording Development

Evidence collected of development undertaken should recorded by individuals. Doctoral researchers already using PebblePad or another ePortfolio are welcome to continue to use their preferred system.

### Supervisor Role

Doctoral skills training should be a collaborative process between doctoral researchers and their supervisory team, so supervisors are expected to actively support doctoral researchers in this area, and integrate it into the supervisory relationship alongside the core research output (thesis) element. Supervisors are also expected to check 'satisfactory engagement' with skills training, particularly with reference to the 12-month (24-month part-time) confirmation process (RF2).

### Contacts

Queries relating to the doctoral skills training should be directed to the [Doctoral School Team](mailto:doctoralschool@shu.ac.uk). A full list of doctoral contacts can be found at: [Doctoral Contacts](https://blogs.shu.ac.uk/doctoralschool/contact-us/)

## Summary of Actions Required by Doctoral Researchers

1. Attend Professional Development Planning training if you want more support (organised by the Doctoral School).
2. Undertake a development needs analysis against the Researcher Development Framework.
3. Set actions to address skills gaps that are identified.
4. Share the completed Development Needs Analysis and Action Plan documents with your supervisor and jointly agree your development plan. Submit the agreed reports as attachments to your RF1 application.
5. Undertake the relevant training and development ([Training and Development overview](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/)).
6. Keep a record of your progress against your development plan and review it regularly eg at least every 6 months with your supervisor.

### Development Needs Analysis

To complete this table you will need to refer to the Vitae Researcher Development Framework (RDF) - a pdf version can be downloaded from the [Vitae Website](https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae.pdf) (you may need to register on the website with your shu.ac.uk email address first).

The table is available as a standalone document from the Research Degrees Blackboard site.

The RDF is structured into 4 domains (A-D), each of which has 3 sub-domains (A1, A2, A3 etc). Each sub-domain is further divided into descriptors (63 in total). Each descriptor has between 3 and 5 Phases, numbered from 1 (new researcher) through to 5 (experienced research leader). You should use the statements under each Phase on pages 3-22 of the RDF to complete a self-assessment of which Phase you are at currently in relation to your research degree.

This will enable you, with the support of your supervisors, to identify the areas you wish to develop and create an action plan. You will need to share the completed Development Needs Analysis document with your supervisor and later submit it with your RF1.

For each descriptor listed below indicate the Phase of development you feel most closely represents your current level of skills, knowledge and behaviours. You might find it helpful to make a note here of your priority areas to inform the next stage of action planning.

Shading indicates descriptors included in the Getting Started lens.

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| **DOMAIN A** | | | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** |
| Knowledge and intellectual abilities (A) | | | | | | | |
|  | Knowledge base (A1) | | | | | | |
|  |  | Subject knowledge |  |  | |  | |
|  |  | Research methods - theoretical knowledge |  |  |  |  | |
|  |  | Research methods - practical application |  |  |  |  | |
|  |  | Information seeking |  |  |  | | |
|  |  | Information literacy and management |  |  |  |  | |
|  |  | Languages |  |  |  | | |
|  |  | Academic literacy and numeracy |  |  |  | | |
|  | Cognitive abilities (A2) | | | | | | |
|  |  | Analysing |  |  | |  | |
|  |  | Synthesising |  |  |  | | |
|  |  | Critical thinking |  |  |  |  | |
|  |  | Evaluating |  |  |  |  | |
|  |  | Problem solving |  |  |  |  | |
|  | Creativity (A3) | | | | | | |
|  |  | Inquiring mind |  |  |  |  | |
|  |  | Intellectual insight |  |  |  |  |  |
|  |  | Innovation |  |  |  | |  |
|  |  | Argument construction |  |  |  | | |
|  |  | Intellectual risk |  |  | |  | |

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| **My Domain A Priority areas:** |
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| **DOMAIN B** | | | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** |
| Personal effectiveness (B) | | | | | | | |
|  | Personal qualities (B1) | | | | | | |
|  |  | Enthusiasm |  | |  | |  |
|  |  | Perseverance |  | |  |  |  |
|  |  | Integrity |  |  |  |  |  |
|  |  | Self-confidence |  |  |  |  |  |
|  |  | Self-reflection |  |  |  | | |
|  |  | Responsibility |  |  |  |  | |
|  | Self-management (B2) | | | | | | |
|  |  | Preparation and prioritisation |  |  |  |  | |
|  |  | Commitment to research |  |  |  | |  |
|  |  | Time management |  |  |  | | |
|  |  | Responsiveness to change |  |  |  |  |  |
|  |  | Work-life balance |  |  |  | | |
|  | Professional and career development (B3) | | | | | | |
|  |  | Career management |  |  |  |  |  |
|  |  | Continuing professional development |  |  |  |  | |
|  |  | Responsiveness to opportunities |  |  |  | | |
|  |  | Networking |  | |  |  |  |
|  |  | Reputation and esteem |  |  |  |  |  |

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| **My Domain B Priority areas:** |
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| **DOMAIN C** | | | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** |
| Research organisation and governance (C) | | | | | | | |
|  | Professional conduct (C1) | | | | | | |
|  |  | Health and safety |  |  |  |  |  |
|  |  | Ethics, principles and sustainability |  |  |  |  |  |
|  |  | Legal requirements |  |  |  |  |  |
|  |  | IPR and copyright |  |  |  | |  |
|  |  | Respect and confidentiality |  |  |  |  |  |
|  |  | Attribution and co-authorship |  |  |  |  |  |
|  |  | Appropriate practice |  |  |  |  |  |
|  | Research management (C2) | | | | | | |
|  |  | Research strategy |  |  | |  | |
|  |  | Project planning and delivery |  |  |  |  | |
|  |  | Risk management |  |  |  |  |  |
|  | Finance, funding and resources (C3) | | | | | | |
|  |  | Income and funding generation |  |  |  | |  |
|  |  | Financial management |  |  |  |  | |
|  |  | Infrastructure and resources |  |  |  |  | |

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| **My Domain C Priority areas:** |
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| **DOMAIN D** | | | **Phase 1** | **Phase 2** | **Phase 3** | **Phase 4** | **Phase 5** |
| Communication, influence and impact (D) | | | | | | | |
|  | Working with others (D1) | | | | | | |
|  |  | Collegiality |  |  |  |  | |
|  |  | Team working |  |  |  |  | |
|  |  | People management |  |  |  |  | |
|  |  | Supervision |  |  |  | | |
|  |  | Mentoring |  |  |  |  | |
|  |  | Influence and leadership |  |  |  |  |  |
|  |  | Collaboration |  |  |  |  | |
|  |  | Equality and diversity |  |  |  |  | |
|  | Communication and dissemination (D2) | | | | | | |
|  |  | Communication methods |  |  |  |  | |
|  |  | Communication media |  |  |  |  |  |
|  |  | Publication |  |  |  |  |  |
|  | Engagement and impact (D3) | | | | | | |
|  |  | Teaching |  |  |  |  | |
|  |  | Public engagement |  |  |  |  | |
|  |  | Enterprise |  |  |  |  | |
|  |  | Policy |  |  |  |  |  |
|  |  | Society and culture |  |  |  |  | |
|  |  | Global citizenship |  |  |  | |  |

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| **My Domain D Priority areas:** |
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### Development Plan

This is where you will set development actions for your priority areas. Referring back to your Development Needs Analysis against the RDF, select 6-8 areas for action and share this with your supervisor to inform a conversation about your professional development. This should be completed in preparation for your RF1 and updated on a regular basis. It provides an overview of the actions that you have planned to undertake to develop the skills, knowledge and behaviours required to be a successful researcher.

You can refer to the Doctoral School blog pages for links to further information, suggestions for how you can improve in each area and links to supporting resources.

Domain A: Knowledge and intellectual abilities - [Domain A page on the Doctoral School blog](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/researcher-development-framework-rdf/domain-a-knowledge-and-intellectual-abilities/)

Domain B: Personal effectiveness - [Domain B page on the Doctoral School blog](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/researcher-development-framework-rdf/domain-b-personal-effectiveness/)

Domain C: Research governance and organisation - [Domain C page on the Doctoral School blog](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/researcher-development-framework-rdf/domain-c-research-governance-and-organisation/)

Domain D: Engagement, influence and impact - [Domain D page on the Doctoral School blog](https://blogs.shu.ac.uk/doctoralschool/training-and-development-2/researcher-development-framework-rdf/domain-d-engagement-influence-and-impact/)

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| **RDF Descriptor and Phase**  (eg Subject Knowledge Phase 1) | **Date created** | **What are your objectives?** | **How will you measure progress and achievement?** | **Target date** | **Progress / Date completed** |
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