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**Knowledge, behaviours and attributes developed through a research degree**

A guide to identifying knowledge, behaviours and personal attributes developed through a research degree.

The Researcher Development Framework (RDF), which articulates the knowledge, behaviours and attributes of researchers, provides a valuable tool to assist you to identify personal and professional development through your doctoral research.



The RDF was developed by Vitae, a UK-wide organisation that supports career and professional development of researchers ([www.vitae.ac.uk](http://www.vitae.ac.uk)). It aims to assist researchers at all levels to evaluate and plan their own personal development. A personal development planner tool is available on the Vitae website by subscription to help identify strengths, action plan, review achievements and create a portfolio of evidence.

The **knowledge, behaviours and attributes audit exercise** **for PhD students** which follows, is based on an abbreviated RDF. This is designed to help you to recognise your strengths and to aid awareness of your development needs and goals. You can take stock of how you have been developing as a researcher by rating your confidence level for each of the descriptors provided. Space is provided to record specific evidence that illustrates your competence; this will be valuable when it comes to marketing yourself in your CV and at interviews.

**Knowledge, behaviours and attributes audit exercise**

1. **Rate yourself:** Reflect honestly on your abilities and rate yourself from 1 – 4 (where 1= not at all confident I can do this and 4 = very confident I can do this).
2. **Highlight what you are good at:** use a coloured font to highlight descriptors that you have rated at 3 or 4. This will help you to recognise your current strengths. It is worth also reflecting which of these gives you most satisfaction.
3. **Record evidence of your strengths:** make a note of some specific examples which you could use to illustrate your competence in job applications and at interviews.
4. **Identify areas for development:** review areas where you feel less confident and, if appropriate, consider steps you could take to develop your confidence e.g. by attending a related course, or discussion with your supervisor.

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|  | **Rate Yourself** **(1 low – 4 high)** | **Evidence** |
|  | **1** | **2** | **3** | **4** | ***Record examples illustrating your strengths*** |
| **Knowledge and intellectual abilities** |
| **Cognitive abilities** |
| Can critically analyse and evaluate own findings and those of others |  |  |  |  |  |
| Sees connections between own research and previous studies |  |  |  |  |  |
| Critically synthesises complex information from diverse sources |  |  |  |  |  |
| Recognises a range of problems, and can formulate and apply solutions  |  |  |  |  |  |
| **Creativity** |
| Willingness and ability to learn and acquire knowledge |  |  |  |  |  |
| Identifies and ask useful and challenging questions |  |  |  |  |  |
| Creates ideas and opportunities by investigating / seeking information |  |  |  |  |  |
| Exercises critical judgement to create new or imaginative ways of understanding |  |  |  |  |  |
| Structures arguments clearly and concisely, producing evidence in defence of ideas |  |  |  |  |  |
| Is willing to expose ideas to a critical audience and to critically appraise other research |  |  |  |  |  |
| **Knowledge base** |
| Understands own and related areas of research, the advances within them |  |  |  |  |  |
| Knowledge of appropriate research methodologies and ability to apply them appropriately  |  |  |  |  |  |
| Can identify and access suitable sources of information, assessing reliability and relevance |  |  |  |  |  |
| Ability to record, manage and handle information / data using appropriate software  |  |  |  |  |  |
| Can write in a style appropriate to purpose for specialist and non-specialist audience |  |  |  |  |  |
| Understands and applies any statistics used in research area |  |  |  |  |  |
| **Personal effectiveness** |
| **Personal qualities** |  |
| Able to stay motivated and enthusiastic even when work is mundane |  |  |  |  |  |
| Perseveres in face of obstacles and demonstrates resilience  |  |  |  |  |  |
| Understands and demonstrates standards of good research practice, acting with professional integrity |  |  |  |  |  |
| Shows confidence in defending ideas in the face of challenge from others |  |  |  |  |  |
| Seeks and takes personal feedback on performance and acts on it |  |  |  |  |  |
| Takes responsibility for own project, demonstrating independence |  |  |  |  |  |
| **Self-management** |
| Prepares, plans and prioritises project to meet objectives |  |  |  |  |  |
| Shows dedication and determination in developing own research |  |  |  |  |  |
| Manages own time effectively to deliver projects on schedule |  |  |  |  |  |
| Demonstrates flexibility when dealing with the unexpected and adapts approach when necessary |  |  |  |  |  |
| **Professional and career development** |
| Seeks opportunities for professional and career development |  |  |  |  |  |
| Shows awareness of own skills and attributes, and identifies ways to improve employability |  |  |  |  |  |
| Develops and uses networks effectively for feedback and advice on work and to seek out opportunities  |  |  |  |  |  |
| **Research governance and organisation** |
| **Professional conduct** |
| Understands, respects and applies appropriately policies relevant for own area of work, e.g. health and safety, ethics |  |  |  |  |  |
| Understands data ownership rules as they apply to research, ie. IPR and copyright |  |  |  |  |  |
| **Research management** |
| Has understanding of broader context of research in strategy of the institution and discipline area |  |  |  |  |  |
| Applies effective project management through setting research goals, defining milestones and prioritising activities |  |  |  |  |  |
| Can identify and manage risks associated with project |  |  |  |  |  |
| **Finance, funding and resources** |
| Understands the processes for funding and evaluation of research, and awareness of relevant funding sources |  |  |  |  |  |
| Knowledge of financial management systems and manages own grant |  |  |  |  |  |
| **Engagement, influence and impact** |
| **Working with others** |
| Gives and receives feedback appropriately |  |  |  |  |  |
| Recognises impact on others when working in a team and able to contribute to team success |  |  |  |  |  |
| Manages relationships with supervisor and peers, and negotiates to set clear expectations of them and others |  |  |  |  |  |
| Effectively supports learning and advises others when appropriate, for example through teaching or demonstrating |  |  |  |  |  |
| Demonstrates ability to influence and lead, by communicating confidently and convincingly |  |  |  |  |  |
| Can build collaborative relationships with colleagues and stakeholders to benefit research and to maximise impact |  |  |  |  |  |
| **Communication and dissemination** |
| Constructs coherent arguments and articulates ideas clearly to a range of audiences, formally and informally |  |  |  |  |  |
| Can persuade effectively, asking timely and appropriate questions |  |  |  |  |  |
| Can produce high quality academic writing  |  |  |  |  |  |
| **Engagement and impact** |
| Engages with and shares research through research-informed and student-focused teaching  |  |  |  |  |  |
| Contributes to increasing public awareness, engagement and understanding of research |  |  |  |  |  |
| Is enterprising, creates ideas and identifies opportunities for commercial exploitation of research  |  |  |  |  |  |
| Recognises and understands the wider impact of research on society, and is keen to make a contribution |  |  |  |  |  |