Comparison of the Joint Skills Statement with the Researcher Development Framework

The Joint Skills Statement (JSS) was jointly issued by the UK Research Councils in 2001. It sets out the skills and attributes that doctoral researchers are expected to develop during their postgraduate research degree programmes. The development of the JSS was groundbreaking in providing a framework and language, irrespective of discipline, to articulate postgraduate researchers' skills. It has been embedded in the QAA Code of Practice for Research Degree Programmes and within the Roberts' agenda, which focuses on the skills development of sections D-G of the JSS: personal effectiveness, communication skills, networking and team working, and career development. The JSS has been used extensively by institutions to map their provision of skills development opportunities and to create personal development tools for postgraduate researchers.

However, the higher education sector and the Research Councils have recognised that it has effectively become the baseline and we need to move beyond it. It now needs to reflect the broader range of skills, for example, leadership, creativity and enterprise, which are required to be an effective researcher and employee in a world driven by knowledge production and innovation.

Furthermore, the JSS is a snapshot at the completion of a doctorate. For it to function effectively to support the development of researchers it needs to evolve to include how researchers can improve their proficiency and career opportunities within the academic sector and beyond.

However, the JSS has been instrumental in ensuring a focus on transferable skills development for postgraduate researchers as well as being an invaluable tool for researchers and those supporting their development in providing a 'framework' around which activities can take place. An important part of the development of the framework is to manage the transition from the JSS to its successor.

All the skills and attributes of the JSS have been incorporated into the Researcher Development Framework and highlighted against the Researcher Development Statement descriptors for reference. Table 1 and Table 2 below show how the JSS and Researcher Development Statement map onto each other.

The QAA have given their agreement in principle to incorporating the Researcher Development Framework, as a replacement to the JSS, into the next revision of Section One of their Code of Practice[1]. RCUK and the Research Councils have confirmed their commitment to review the proposed framework with respect to their training requirements and the Roberts' agenda.

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[1] The QAA is currently evaluating the Academic Infrastructure. How the successor to the JSS is incorporated into Section One of the ten sections of the Code of Practice, part of the Academic Infrastructure, will depend on the outcomes of this evaluation.

Table 1: A mapping of how the JSS has been incorporated in the Researcher Development Statement

Researcher Development Statement	Joint Skills Statement
Domain A: Knowledge and intellectual abilities	
A1 Knowledge base	
1. Subject knowledge	A3
2. Research methods – theoretical knowledge	A4, B6
3. Research methods – practical application	
4. Information seeking	C3
5. Information literacy and management	C2, C4
6. Languages	
7. Academic literacy and numeracy	E1
A2 Cognitive abilities	
1. Analysing	A5
2. Synthesising	
3. Critical thinking	A1, A2
4. Evaluating	A6
5. Problem solving	
A3 Creativity	
1. Inquiring mind	D1, D3
2. Intellectual insight	D7
3. Innovation	D2
4. Argument construction	E3
5. Intellectual risk	
Domain B: Personal effectiveness	
B1 Personal qualities	
1. Enthusiasm	
2. Perseverance	D5
3. Integrity	B3
4. Self-confidence	D6, D7
5. Self-reflection	
6. Responsibility	
B2 Self-management	
1. Preparation and prioritisation	
2. Commitment to research	
3. Time management	
4. Responsiveness to change	
5. Work-life balance	
B3 Professional and career development	
1. Career management	G2, G4
2. Continuing professional development	D4, G1
3. Responsiveness to opportunities	G3
4. Networking	F1
5. Reputation and esteem	

Domain C: Research governance and organisation	
C1 Professional conduct	
1. Health and safety	B4
2. Ethics, principles and sustainability	B2
3. Legal requirements	B2
4. IPR and copyright	B2
5. Respect and confidentiality	B2
6. Attribution and co-authorship	B2
7. Appropriate practice	B2
C2 Research management	
1. Research strategy	
2. Project planning and delivery	C1
3. Risk management	
C3 Finance, funding and resources	
1. Income and funding generation	B5
2. Financial management	
3. Infrastructure and resources	
Domain D: Engagement, influence and impact	
D1 Working with others	
1. Collegiality	F3
2. Team working	F2
3. People management	
4. Supervision	
5. Mentoring	E5
6. Influence and leadership	
7. Collaboration	
8. Equality and diversity	
D2 Communication and dissemination	
1. Communication methods	E2
2. Communication media	
3. Publication	
D3 Engagement and impact	
1. Teaching	
2. Public engagement	E4
3. Enterprise	B7
4. Policy	
5. Society and culture	
6. Global citizenship	B1

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Table 2: Joint Skills Statement skills and attributes mapped against where they have been incorporated into the Researcher Development Statement

Joint Skills Statement	Researcher Development Statement
(A) Research Skills and Techniques – to be able to demonstrate:	
1. The ability to recognise and validate problems	A2.3 Critical thinking
2. Original, independent and critical thinking, and the ability to develop theoretical concepts	A2.3 Critical thinking
3. A knowledge of recent advances within one's field and in related areas	A1.1 Subject knowledge
4. An understanding of relevant research methodologies and techniques and their appropriate application within one's research field	A1.2 Research methods – theoretical knowledge
5. The ability to critically analyse and evaluate one's findings and those of others	A2.1 Analysing
6. An ability to summarise, document, report and reflect on progress	A2.4 Evaluating
(B) Research Environment – to be able to:	
1. Show a broad understanding of the context, at the national and international level, in which research takes place	D3.6 Global citizenship
2. Demonstrate awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research, eg confidentiality, ethical issues, attribution, copyright, malpractice, ownership of data and the requirements of the Data Protection Act	C1.2 Ethics, principles and sustainability C1.3 Legal requirements C1.5 Respect and confidentiality C1.6 Attribution and co-authorship C1.4 IPR and copyright C1.7 Appropriate practice
3. Demonstrate appreciation of standards of good research practice in their institution and/or discipline	B1.3 Integrity
4. Understand relevant health and safety issues and demonstrate responsible working practices	C1.1 Health and safety
5. Understand the processes for funding and evaluation of research	C3.1 Income and funding generation
6. Justify the principles and experimental techniques used in one's own research	A1.2 Research methods – theoretical knowledge
7. Understand the process of academic or commercial exploitation of research results	D3.3 Enterprise
(C) Research Management – to be able to:	
1. Apply effective project management through the setting of research goals, intermediate milestones and prioritisation of activities	C2.2 Project planning and delivery
2. Design and execute systems for the acquisition and collation of information through the effective use of appropriate resources and equipment	A1.5 Information literacy and management
3. Identify and access appropriate bibliographical resources, archives, and other sources of relevant information	A1.4 Information seeking
4. Use information technology appropriately for database management, recording and presenting information	A1.5 Information literacy and management

(D) Personal Effectiveness – to be able to:	
1. Demonstrate a willingness and ability to learn and acquire knowledge	A3.1 Inquiring mind
2. Be creative, innovative and original in one's approach to research	A3.3 Innovation
3. Demonstrate flexibility and open-mindedness	A3.1 Inquiring mind
4. Demonstrate self-awareness and the ability to identify own training needs	B3.2 Continuing professional development
5. Demonstrate self-discipline, motivation, and thoroughness	B1.2 Perseverance
6. Recognise boundaries and draw upon/use sources of support as appropriate	B1.4 Self-confidence
7. Show initiative, work independently and be self-reliant	A3.2 Intellectual insight B1.4 Self-confidence
(E) Communication Skills – to be able to:	
1. Write clearly and in a style appropriate to purpose, eg progress reports, published documents, thesis	A1.7 Academic literacy and numeracy
2. Construct coherent arguments and articulate ideas clearly to a range of audiences, formally and informally through a variety of techniques	D2.1 Communication methods
3. Constructively defend research outcomes at seminars and viva examination	A3.4 Argument construction
4. Contribute to promoting the public understanding of one's research field	D3.2 Public engagement
5. Effectively support the learning of others when involved in teaching, mentoring or demonstrating activities	D1.5 Mentoring
(F) Networking and Teamworking – to be able to:	
1. Develop and maintain co-operative networks and working relationships with supervisors, colleagues and peers, within the institution and the wider research community	B3.4 Networking
2. Understand one's behaviours and impact on others when working in and contributing to the success of formal and informal teams	D1.2 Team working
3. Listen, give and receive feedback and respond perceptively to others	D1.1 Collegiality
(G) Career Management – to be able to:	
1. Appreciate the need for and show commitment to continued professional development	B3.2 Continuing professional development
2. Take ownership for and manage one's career progression, set realistic and achievable career goals, and identify and develop ways to improve employability	B3.1 Career management
3. Demonstrate an insight into the transferable nature of research skills to other work environments and the range of career opportunities within and outside academia	B3.3 Responsiveness to opportunities
4. Present one's skills, personal attributes and experiences through effective CVs, applications and interviews	B3.1 Career management