Skill Guide

Research Staff

INSTITUTE FOR **ACADEMIC** **DEVELOPMENT**

THE UNIVERSITY *of* EDINBURGH

Skill Guide Research Staff

This guide sets out a range of generic skills, knowledge and behaviours that we believe research staff are expected to have, or to develop, throughout their career.

Introduction

- This guide sets out a range of generic skills, knowledge and behaviours that we believe research staff are expected to have, or to develop, throughout their career. Although it reflects many of the core activities of academic researchers, not all may be relevant to you, and are dependent on the stage you are currently at.

- The list is not exhaustive; its aim is to help you better understand and articulate the wide range of skills researchers have and use, particularly those beyond discipline specific skills.

- Your role will undoubtedly require a mixture of the skills listed below, so do read the guide in conjunction with other documentation (e.g. job description, project or grant proposal, project logs, etc) that helps you understand what is asked of you in your job.

Career Management

Career management includes being able to research, plan, and take informed decisions in relation to your career. This is relevant to all stages of your career, whether you are developing in your current role, preparing for promotion or seeking new career options. This includes the ability to:

- Take ultimate responsibility for your career planning and direction, whilst understanding and capitalising on external opportunities.

- Understand your own unique work and career motivators, values and goals and using them to inform your choices.

- Undertake relevant and planned continuing professional development for career development purposes.

- Understand how to research career options, plan, and present yourself effectively through CVs, applications and interviews.

- Understand the nature of your own transferable skill set and how you can apply these in multiple career options.

Research Skills

This skill area covers the practical aspects of conducting valid, ethical and useable research. This includes your ability to:

- Evolve your understanding of your wider research and discipline area including trends, techniques, people and practices.

- Progress your own understanding of appropriate research methodologies.

- Collect, collate, critically analyse, synthesise, summarise, report and disseminate information.

- Understand and abide by all relevant legislation and guidelines applicable to academic research in general and to your own discipline.

- Work in cross and multi-disciplinary fields.

- Research, understand and capitalise on relevant funding streams in your discipline and related disciplines.

- Understand that expertise in research and knowledge-handling skills are vital in the wider 'knowledge economy', and are highly covetable and applicable in careers inside and outside academia.

Personal and Interpersonal

How you handle yourself and how you interact with others is key to achieving results at work. This covers the following:

Personal

- Manage yourself, your time, your workload and work life balance.

- Be self-aware and recognise your own needs, motivators, values and goals.

- Be creative, flexible, and innovative in approaching tasks.

- Manage and adapt to change.

With others

- Develop and maintain working relationships and wider networks to exchange information, secure support for your work, and build your reputation.

- Understand how your behaviour impacts on and influences others.

- Communicate openly, directly and fairly with others.

- Influence upwards to achieve results.

- Negotiate successfully with others to reach constructive outcomes.

- Actively listen when seeking and giving feedback.

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Communication and Dissemination

Effectively communicating the results of your work, ideas and the work of your discipline can have a far-reaching impact, inside and well beyond academia. This includes the ability to:

- Identify and capitalise on the multiple options for publication (both traditional and new media) and write appropriately for each vehicle.

- Demonstrate effective verbal presentation skills by presenting confidently, appropriately and persuasively to differing audiences.

- Construct coherent arguments, defend outcomes and listen and respond appropriately to feedback.

- Support and contribute to the wider public understanding of your field through appropriate public engagement work.

- Contribute to meetings, society events, conferences etc. to gain exposure.

- Disseminate your results and communicate with key stakeholders in a manner that best supports and realises the impact of your work within your discipline and wider society.

Business and Management Skills

This skill area covers managing the people, resources, processes and practices that enable you to get your job done. This includes your ability to:

Manage people

- Effectively co-operate with others in your team to enhance consensus and collaboration.

- Manage and develop the relationship with your own manager.

- Manage others (staff and students) by ensuring roles and responsibilities are clear and individuals' strengths are used.

- Support your team members' development by reviewing their progress with them.

Manage resources

- Use financial management principles to cost out work, budget and monitor spend.

- Manage the 'things' (supplies, space, information, etc.) you need to do your job.

- Know risk areas and safety requirements in your workplace, and follow safe working procedures at all times.

- Effectively produce the tangible outputs of your work within achievable timescales.

Manage process and practice

Plan and prioritise measurable objectives and set realistic goals within achievable timescales, for yourself and others.

- Effectively plan, review and monitor project progress and develop contingency plans where required.

- Use relevant project management techniques.

- Understand and apply relevant procedures and guidelines.

- Manage meetings by setting a clear purpose and agenda, identify roles and action plans, and agree and follow up outputs.

Teaching and Learning

Teaching and learning encompasses the development of others, particularly taught and research students with whom you may work or supervise. It covers the following:

- Prepare and deliver appropriate student learning opportunities: small group discussions, tutorials, seminars and lectures.

- Develop key skills needed to deliver learning activities: public speaking skills, facilitation skills, online learning facilitation skills and feedback skills to learners.

- Develop skills in formal and informal one to one student and project supervision.

- Knowledge of learning and teaching theory, e.g. learning styles and barriers to learning.

- Understand how to effectively support diverse groups of learners.

- Review and evaluate your students' learning to help improve your own performance.

Commercialisation, Knowledge Transfer and Exchange

This area covers understanding how to capitalise on the commercial potential of your research and enhance the marketability of your own skills, knowledge and expertise. This includes the ability to:

- Influence and inform policy makers and policy decisions.

- Understand and identify aspects of your work that may have commercial potential, and use the appropriate support channels to protect and develop these.

- Have skills in, and knowledge of, entrepreneurship and business enterprise, including company formation and 'spin out' processes and practice.

- Understand 'knowledge transfer' (KT) in the widest sense, how it relates to your discipline area, and identify and use appropriate KT vehicles and practices.

- Develop skills in personal consultancy and identify and capitalise on consultancy and wider outreach opportunities.

Digital Skills

This skill covers proficiency using existing technologies and the ability to learn new technologies to stay up-to-date with modern techniques and methodologies in the field.

- Use a range of basic and technical ICT-based devices and software for research as required by the field of study.

- Undertake secondary research/literature reviews by searching a range of digital databases, journals, archives, indexes, portals and sites, as appropriate.

- Collect data securely and responsibly using appropriate digital methods.

- Analyse data using qualitative and quantitative tools suitable to the field of study and methodology.

- Use digital tools to record events in the research process for planning, reflection and review; for self-analysis, reflection and monitoring progress.

- Use a range of digital techniques—text, images, presentations, podcasts infographics, blogs, web pages- to communicate research findings.

- Develop and project a positive researcher identity online and use technology to network with researchers in your field.

- Stay up to date with new devices/applications as they evolve and understand how digital technologies are influencing research.