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HDR EMPLOYABILITY GUIDE 3: ASSESSING AND DEVELOPING YOUR SKILLS

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HIGHER DEGREE BY RESEARCH EMPLOYABILITY GUIDE 3: ASSESSING AND DEVELOPING YOUR SKILLS

Irrespective of your desired career direction, one of the most important factors in successfully becoming employed is understanding and articulating your skills. Using skills as the basis of a job search enables you to identify potential career options—and articulating skills effectively is the foundation of job applications.

Many skills—such as communication and time management—are valuable across all employment sectors. Therefore, being aware of how to transfer your research skills into non-academic employability skills (refer to Guides 1 and 6) is especially important.

The easiest way to conceptualise your skills is that they represent HOW you do, WHAT you do. This means skills are how you complete tasks and activities inherent in your research degree, work roles and general life.

Categories of skills

As a researcher you utilise three main categories of skills: general employability skills, academic (including research) skills and discipline-specific skills. Examples of these are:

General	◆ Oral and written communication	◆ Time management
	◆ Problem solving	◆ Teamwork
Academic	◆ Writing for publication	◆ Analysing data
	◆ Presenting at conferences	◆ Designing research methodology
Discipline-specific	◆ Laboratory procedures	◆ Counselling
	◆ Design management	◆ Functional gait analysis

One way to understand the differences between categories of skills is to compare a position description for an Academic Level B role with a position description for non-academic roles in your discipline or more generally. For example, policy advisor, information analyst (see Guide 2 for search strategies).

Many of your academic and discipline-specific skills can transfer to the general employability skill set although the language may differ. For example, *tutoring* may be described as *training* (covered further in Guide 6). It is also helpful to understand how your discipline-specific skills may transfer to another discipline area, allowing you to perform tasks in that environment. For instance, if you are an economics researcher your skills may include environmental economics which could also be beneficial in the environmental science or engineering sectors. You can gain this information by reading about jobs in a variety of sectors as discussed in Guide 2. Additionally, the Cheeky Scientist has great resources about HDRs' transferable skills.

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[1] Note that skill sets can be categorised in a variety of ways (such as soft, professional, technical, interpersonal and so on) and this is just one possible grouping.

Level of skills: Broad to specific

One of the big mistakes many people make is to discuss their skills at the broad level, for example, "I have excellent communication skills". This really means nothing—after all, most of us can communicate! Learning how to break broad skills down into specific components helps you understand the breadth and depth of skills you possess and how to clarify your skills when talking with potential employers.

For instance, there are two main types of communication—verbal and written. Verbal communication can be broken down further into:

- One-on-one (face-to-face) communication—for example, meeting with your supervisor.
- Group discussions—for example, teams or groups.
- Oral presentation skills—for example, presenting at conferences or tutoring.

Other examples of breaking down a broad skill set into specifics include:

Organisation	Teamwork	Problem solving
• Time and task planning • Independent working • Setting deadlines	• Cooperating/liaising • Motivating others • Updating/informing progress	• Identifying issues • Analysing information • Developing solutions

Activity 3.1

In the next section, you will complete some skills identification activities. Once you've identified your skills, choose one of your broad skills and break it down into specific components in the reverse pyramid provided below.

Broad skill

_____

Specific components

_____

_____

_____

_____

_____
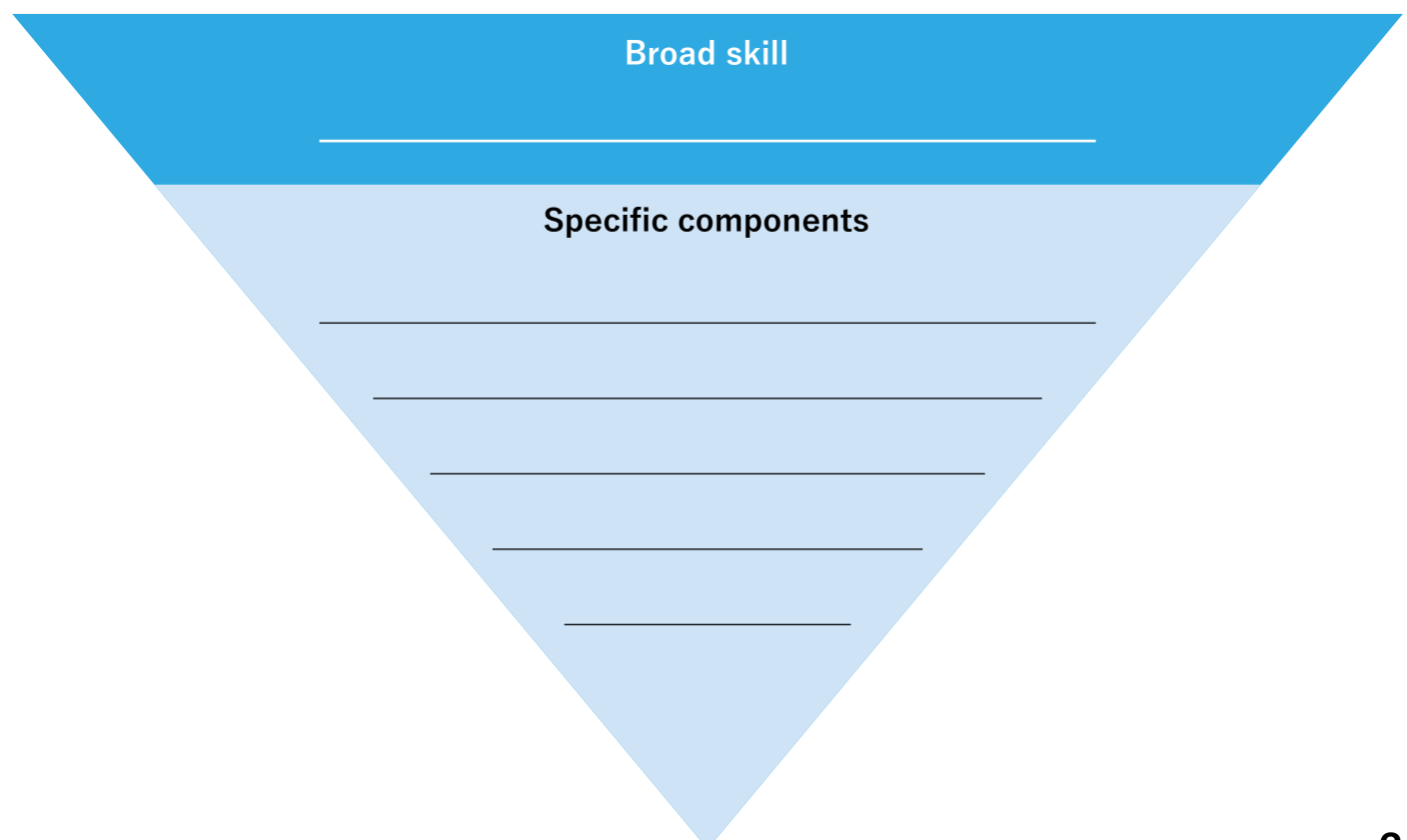
Three methods for identifying skills

Completing activities to identify your skills increases your overall awareness of your skill set, helps you identify evidence of when you have utilised specific skills and enables you to respond adaptively to career opportunities. Whether you keep a regularly updated written record or simply take the time to reflect on your skill development, it's extremely useful to have an arsenal of examples ready for any potential skill an interviewer asks you to discuss.

Three methods for identifying skills are described below with an activity for each. You may have a preference for one method over another—that's fine! Using one method to regularly record your skills and being able to use the others when required is helpful.

Method 1: Skills self-assessment

Method 1 involves (1) starting with a pre-determined list of skills; (2) evaluating your proficiency in these areas based on your experience and (3) listing evidence or examples of activities where you have used the specific skills (Activity 3.2). Having a low proficiency in one of the skills may indicate a need for further development. This method is most commonly used when you are doing an audit of your current skill set or when you are responding to selection criteria in a job application and need to provide evidence of your capabilities.

Activity 3.2 Skills self-assessment

Using the skills in the table below, rank your proficiency on a scale of 1 (not at all proficient) to 5 (completely proficient), then record evidence of this proficiency by providing examples of where you have used this skill.

Skill	Rank (1 – 5)	Evidence – examples of tasks or activities using the skill
Oral communication Calmly and clearly presenting information verbally to others, either one-to-one or in groups		
Presenting complex information Articulating complicated material in a manner which is understood by a range of audiences		
Professional writing Preparing written documents (such as publications, reports) coherently and logically		
Problem solving Identifying issues and using practical solutions to resolve these		
Critical thinking Analysing information from a number of contexts, evaluating arguments and formulating justifiable conclusions		
Advanced information retrieval skills Using a range of resources to keep up-to-date with developments/information		
Teamwork Collaborating, co-operating and supporting others, whilst completing own tasks in order to achieve the team goals		
Managing conflict Using appropriate conflict management strategies to pro-actively address issues		
Time management Setting priorities, developing timelines, and working efficiently in order to complete projects within set timeframes		
Decision making Making timely decisions on the basis of a thorough assessment of relevant information		

Skill	Rank (1 – 5)	Evidence – examples of tasks or activities using the skill
Leadership and influence Giving direction and guidance, delegating work tasks and motivating others to do their best		
Visioning and innovation Identifying future projects and creating innovate strategies to achieve the proposed outcome		
Forming relevant contacts Regularly contacting industry professionals and fellow academics to form collaborative networks		
Discipline-specific For example, laboratory procedures		

The examples provided are not a comprehensive list and it is recommended that you add more skills to this table. The other Guides in this series may be helpful for this, as well as Method 3 in this Guide and other skills assessments such as those available via Vitae Researcher Development Framework; My Individual Development Plan (myIDP) by Science Careers and Imagine PhD.

Method 2: Task analysis

Method 2 involves (1) starting with a task or an activity and (2) identifying all of the skills utilised when you carry out this task or activity. It is essentially the reverse of Method 1 in that you start with the activities ('evidence') column and use this to fill in the skills column.

This method reflects the fact that we very rarely use one skill in isolation as most activities involve the use of multiple skills at the same time. Consider the act of boiling an egg—this very simple task actually involves a number of skills. For example, (1) the planning, financial and transactional skills to purchase an egg from a shop and (2) the time management skills and judgement required to remove the egg from the stove at an appropriate time according to your egg preferences (hard-boiled vs soft-boiled) without letting the saucepan boil dry.

Being able to use Method 2 is helpful if you are in a situation where you need to consider the range of skills that make up a larger activity. For instance, if you were at a barbecue and someone mentioned they were organising an event and needed assistance you could unpack the broad activity (event management), then identify and discuss the skills you have that would be beneficial to that activity—for example, time management, prioritising and budgeting.

Activity 3.3

Think of a recent activity you completed as part of your candidature or professional development, then list (or brainstorm, or mind-map) the skills you used to complete that task or activity.

Activity	Skills used
Example: Presenting research at a symposium	◆ Analysing skills to identify the appropriate content for the audience ◆ Computer/PowerPoint to prepare effective slides ◆ Oral communication to clearly present information ◆ Listening and responding to questions
My recent activity...	*Skills used...*

Method 3: Researching and analysing job information

Method 3 is about researching the job market (as in Guide 2) to recognise the skills used in a range of positions. It involves (1) reading job descriptions or selection criteria and (2) recording the skills you already have or those you would like to develop.

This method helps you increase your awareness of your current skills; discover a range of roles that utilise your skills; and highlight gaps between your current skills and those required for jobs in your chosen career—thus signalling key skills to target for further development. This method also enables you to recognise the different language used to describe a skill in different environments and how to articulate your skills using role-appropriate or industry-specific language. As an example, *tutoring* (common terminology used in universities) may be called *training* in industry; similarly *completing ethics applications* may equate to *understanding occupational health and safety procedures*. Guides 4 and 6 provide further information on articulating and providing evidence of your skills to optimise your employability.

A useful site for this activity is PostAc jobs, which lists past academic and non-academic positions well suited to HDR graduates[2].

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[2] At the time of publishing this Guide the PostAc Jobs website was still partially under development. The full site is expected to launch in July 2019 and there may be a small access fee.

Activity 3.4

Research job descriptions and selection criteria for jobs that would utilise the HDR skill set (Guide 2 provides some information to assist with this). Note down any skills mentioned that you possess and provide examples of how you have demonstrated this skill. Also record any skills you realise you may need to develop further to address any identified 'skills gaps'.

Information source	Skills required	My evidence /examples	Further development?
Selection criterion: Ability to exercise initiative and judgment and to be innovative within policy boundaries	◆ Critical analysis ◆ Problem solving ◆ Creative thinking ◆ Understanding policy	◆ Justifying my research method ◆ Completing ethics applications	Need to gain more experience identifying innovative solutions to issues

Developing skills

By auditing or assessing your skills in the activities above; learning about skills of the future (discussed in Guide 1); or reading job descriptions for your desired career pathway (Guide 2) you may become aware there are some skills you could develop further to enhance your post-HDR employability. Strategically selecting opportunities to develop skills throughout your candidature will assist you to gain experience; build evidence of your capabilities and bridge identified skills gaps to strengthen your future job applications.

There are many opportunities to develop and broaden your skills both within and outside university during your candidature. When considering an employment or developmental opportunity, identify which skills you will be enhancing; consider whether it addresses an identified skills gap and reflect on the potential benefit to your career. Listed over are some ideas to get you started.

Within your university

To identify opportunities within your university, read newsletters from your graduate research school, HDR network and university departments; identify potential committees, clubs or associations by exploring the university website; and speak with your supervisor, other academics and HDR colleagues. Some examples include:

- Committee membership as a faculty postgraduate student representative or conference organising committee—communication; teamwork; organisation; negotiating skills.
- Tutoring—oral communication; designing learning activities; providing feedback.
- Participate in or start a 'journal club' —initiative; organisation skills; presenting and defending ideas.
- Skills-based workshops for HDRs (for example, through your university library).
- Participate in the 3MT or internal seminar opportunities—improve communication skills.

Externally

Many external opportunities may be identified through community groups or associations connected to your research topic; joining professional industry associations; asking people who work in your discipline and using LinkedIn. Some examples include:

- Membership of community organisation board or groups—teamwork; group communication.
- Massive Open Online Courses (MOOCs) and other online learning (such as Coursera; edX; FutureLearn; Lynda.com).
- Internship programs (if your university has one) or industry-based work experience—practical tasks; professionalism; industry awareness.
- Contributing to an industry journal or other publication (such as The Conversation) or blogging—writing for a non-academic audience.
- Volunteering for community organisations or events—various skills, depending on activity.

The following links also provide information and ideas for developing skills:

- Thesis Whisperer.
- UniSA's Engaged PhD MOOC resources.
- Australian Postgraduate Research (APR) Intern program.
- UoW Career Conversations blog.
- Career management for researchers (Vitae).
- Nature Careers blog.
- Science Careers.
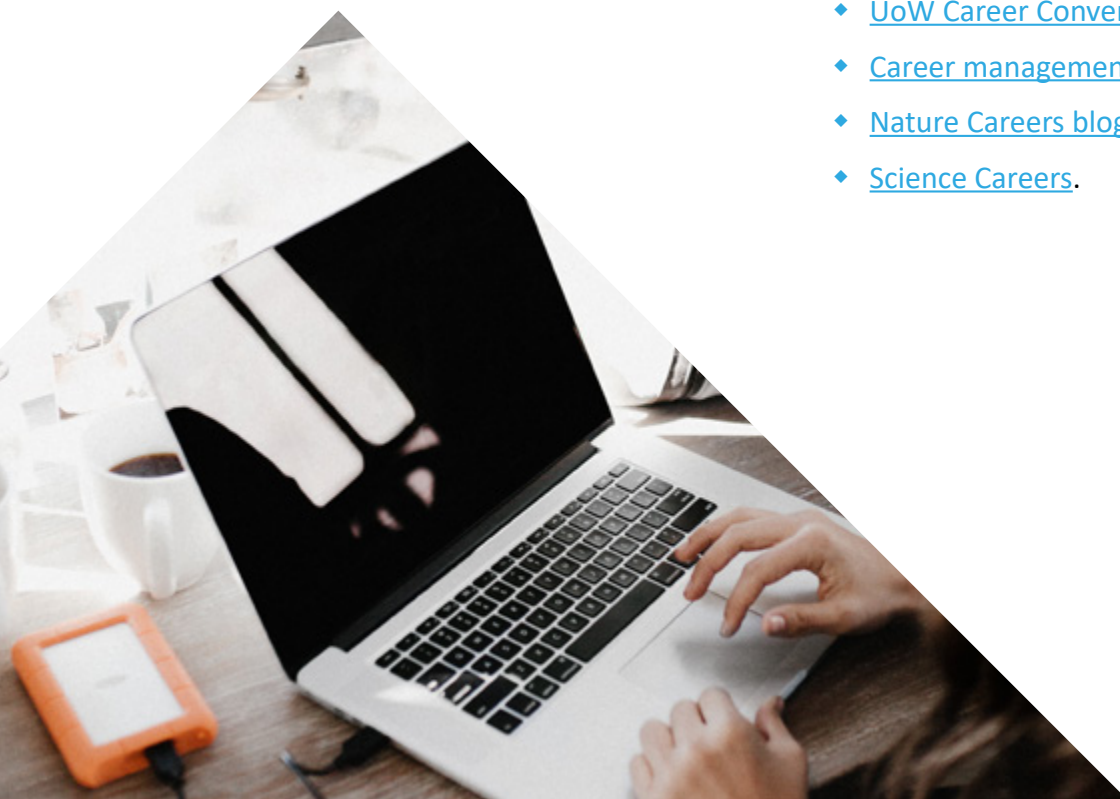
Activity 3.5 Career development action plan

Using the information and previous activities in this Guide, create a career development action plan.

Overall career goal:			
(insert some broad ideas about your career aspirations—e.g. Monitor current skills and developmental needs)			
Strategy	**Action steps**	**Completion date**	**Overall benefit**
Weekly skills recording	Review activities for week and identify skills	Thursday morning	Up to date knowledge and evidence for a range of skills

Skill to be developed:			
(e.g. Public speaking)			
Strategy	**Action steps**	**Completion date**	**Overall benefit**
Participate in 3MT	◆ Get 3MT information ◆ Discuss with supervisor ◆ Apply ◆ Participate in training ◆ Take part in competition	◆ January 2019 ◆ February 2019 ◆ When applications open ◆ When scheduled ◆ August/September 2019	Practice in clearly articulating my research to an audience

Ongoing monitoring of skills

Now that you have practiced identifying and recording your skills, try to schedule regular times in your diary to reflect on your skills and record evidence of when specific skills have been utilised. Also, pay attention to any skills gaps you may become aware of, and participate in appropriate developmental activities throughout your candidature.

Higher Degree by Research (HDR) Experience and Employability Project partners: