Creating your Development Needs Analysis (DNA)

Handbook for Postgraduate Researchers

Contents

Introduction

The activities in the **"Creating your Development Needs Analysis (DNA)"** form are designed to guide you in building your tailored Development Needs Analysis (DNA) step by step. Your responses to these activities are not the end but rather the starting point for conversations, activities, and new experiences. As you continue through your research degree, you acquire and consolidate knowledge and skills, and your aspirations might change as opportunities arise. Therefore, the Development Needs Analysis (DNA) is a living document and conversation. We encourage you to regularly return to the activities. Not only do they support you in taking ownership of your training, professional and career development, they also encourage you to reflect on your progress, and to bring intention and purpose to your activities and decisions. It is strongly recommended that you work through this with your supervisor, but you may also find it useful to have conversations around these activities with your peers.

You can choose to either engage with all activities or each one as standalone, depending on where you are at any particular time in your studies. Your DNA activities form operates in a non-linear manner, so you can start or end with any section. There is no right or wrong response to these activities. If you do all the activities together you may find that there are some questions which overlap, or that you answer with a similar response. In that case, you have completed that particular reflection and should move on to another area.

This handbook has been created to help you navigate the DNA activities with more ease. It offers additional prompts for each activity as well as providing a list of resources and services at the University to help you on your professional development journey.

Top tip: Reflection and planning take time and focus, do not worry if you need to do these activities over several sessions.

Creating a record or a tracker

You can write your reflection notes and actions directly into the Creating your DNA form. It can then be saved and versions updated as needed. You may, however, prefer to create your DNA in another format, for example as an Excel spreadsheet or on a Gantt chart. These could act as live trackers. This is your choice. The important thing is to engage in reflection and planning regularly, and to have a record of the process.

Accessibility

The DNA resources were created to be as accessible as possible. However, we acknowledge that there are many different accessibility needs, and some users may require further support.

Information services have information about assistive software.

Information service assistive software pages

If you require this document in an alternative format, such as large print or a coloured background, please contact Fiona Philippi:

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Activity 1: General reflection

This activity has two parts. Both allow you to frame your reflection on development in a three-fold manner, through distinct but overlapping components, namely:

- your **research project**;
- your **career**;
- your **personal development**.

This may be a particularly useful activity if you are at the beginning of your degree, and it is useful to revisit this as you progress through your degree.

A Taking stock – where are you now?

The activity focuses your reflection on taking stock of where you are at this moment in time. Reflect on what you have already achieved, and the skills and experiences you bring to your research degree. This will be dependent on the stage of your degree and any prior work or research experience you may have.

The prompts below are to aid your reflection; they are not a list of what you should have done or should do.

- What subject knowledge(s) and/or professional experiences do you bring to your research project?
- Have you had any experiences in the past, that although unrelated to your discipline, helped you acquire relevant skills?
- What skills have you got/have you had to develop to support you in your career journey?
- What milestones have made you feel a deep sense of achievement and confidence?
- What were the most challenging hurdles you've managed to cross to get here today? And how has that shaped your personal development?
- Have you been involved in any collaborative work in the past?

B Vision – where do you want to go?

● What? (inner circle):

Start from the centre of the diagram and write down your goals according to the three areas (research project, career and personal development). Here are some prompt questions for each of these areas.

Research project

- Why are you doing a research degree? What are your intentions/motivations in choosing to embark on this journey?
- Where does your research project challenge you to learn new methods/concepts and/or develop new knowledge? Which of these skills and knowledge areas do you want/need to develop?
- How and where do you seek to share your research ideas and findings?

- Who is interested in your research ideas and how can you reach them? What do you need to learn or develop to do so? (e.g. departmental seminars or meetings, student research gatherings, conferences, science festivals, competitions such as 3 Minute Thesis)

- Are there any research project-related activities for which you require/could seek funding? (e.g. funding for your research degree, competitive award for travel to conferences, award for best research/dissertation, funding to attend or deliver training, small research grant)

- What do you enjoy the most in your research degree, and the least?

- Which activities make you feel in flow?

Career

- What do you enjoy doing?

- What are you interested in?

- What skills do you wish to apply on a regular basis?

- Which career paths are most appealing to you and why?

- Where would you like to work in the future? (location, sector, discipline etc.)

- What values are most important for you and your career?

- How do you want to work? (e.g. types of activities, in a team, leading a team, part-time/full-time, remote or in situ etc.)

- How does a satisfying work day and work environment feel? What sort of working arrangements would be inclusive for you?

- What are your thoughts about continuing a career in academia?

- What are your feelings about "being" an academic?

- Do you want to continue in research? What type of research or in what environment?

You may find the Careers Service resources on understanding yourself useful here:

Careers Service resources on understanding yourself

Personal development

- What types of projects inspire you?

- Do you have any specific physical/mental/learning needs according to which you structure your day and lifestyle in general?

- Do you have any personal circumstances that affect how you structure your development goals and needs?

- What personal life goals do you have and how do those affect your career/development needs? (for example: having a family, living in a specific country, supporting family members, etc.)

- Where do you see yourself in the future? (in relation to priorities, national/international career ambitions, family planning)

● Development (middle circle):

Building on your responses above, you can now think about the skills and experiences you need to get there.

- Where are the current gaps in skills, qualifications or experiences?

- Which gaps do you need to fill to move to the next stage?

- What are longer term actions that you may need to take, that are not a priority now but that you'd like to work towards?

- What areas have you found most challenging, and would want to feel more confident in?

You may find tools such as the Researcher Development Framework (RDF) useful to help you identify gaps in skills, knowledge and experience.

Researcher Development Framework 2025 [PDF]

● How? (outer circle):

How can you acquire those skills and/or experiences?

Make sure you think expansively about your how. It doesn't have to be solely limited to training or workshops, but can also include mentorship, conferences, research groups to join, internship opportunities, summer schools etc. Your responses here should be composed of small, targeted and manageable tasks that you can also add to your timeline of priorities accordingly.
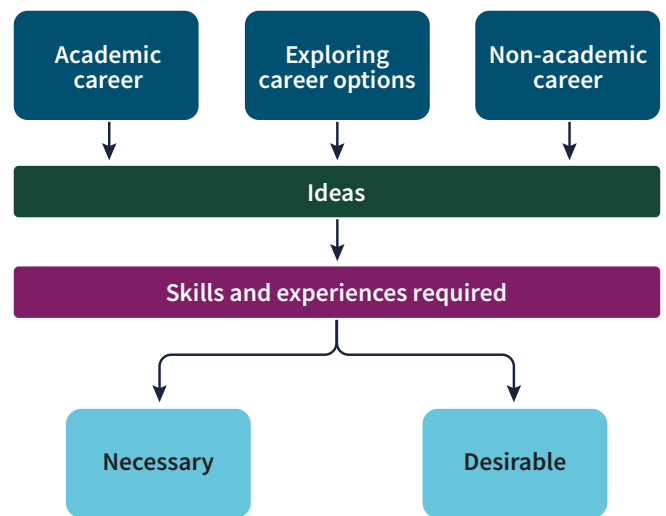
Activity 2: Career path

The career path flow chart invites you to start to define your trajectory step by step. Whether you want to work within or outside academia, or if you are unsure, the middle section (exploring career options) gives you the opportunity to frame your thinking around general milestones/objectives without the pressure of having to choose one or the other.

Regardless of which career path(s) you wish to follow, we recommend you start by thinking through some ideas around your career aspirations.

- Where do you want to be?
- What is important to you?
- Do you have a defined role you wish to pursue?
- What are your options?

You may find the Careers Services resources on various careers options helpful.

Careers Services resources to discover what's out there

Top Tip: It's completely normal if your career aspirations aren't fully formed yet. Taking time to reflect on this activity regularly and being curious about others' career paths can be helpful in gaining clarity.

Once you have some ideas of your preferred career options, turn your focus to the skills and experiences required for your chosen path(s). For each pathway, your reflection on the skills and experiences required can be further defined as necessary and desirable.

The **necessary skills and experiences** represent the training and competencies that you know are required for your career path.

The **desirable skills and experiences** may or may not be clearly related to your chosen career path. These are the ones that are based on your interests and wider career objectives.

One useful way to think about the two categories is:

- **Necessary:** what skills and experiences do you **need**, regardless of your interest in them?
- **Desirable:** what skills do you **want**, and feel that they could contribute to your personal and professional goals?

Once you have defined a range of necessary and desirable skills and experiences, you can start creating a to-do list which answers the question: **what do I have to do to acquire those skills and experiences?** Think about it more holistically. Activities can include attending events, networking, seeking information, attending conferences, joining relevant groups/communities/learned societies, applying for internships, teaching at both undergraduate and postgraduate level and in different formats etc. You can browse the resource section at the end of the document that signposts some services that could offer relevant support.

Activity 3: Timeline of priorities

Beginning stages	Mid stages	End/final stages	Post research degree

This is a useful activity for those at any stage of their research degree and should be revisited on regular occasions.

Once you have your to-do list you must decide what to do when. This means scheduling your activities on your timeline of priorities. Remember, this timeline should be fully tailored to your needs and circumstances. You can be as broad or detailed as you see fit (dividing it into years, semesters, months, weeks etc.). You can come back to your timeline as your priorities shift throughout your research degree and/or the demands on your time change.

Some questions to consider when prioritising activities may include (but are not limited to):

- How much time do you have left to complete your research degree? (i.e. full-time or part-time)
- What are the hard deadlines in your degree (i.e. annual review, completion etc.)?
- Do you have fieldwork, research trips, placements, internship(s) etc. and when do they fit in your timeline? What do you hope to gain from them?
- What can be left for later?
- What are the interdependencies of activities?
- How long will the activities take?

- If funded, how long is your funding period?
- Do you have any visa requirements/ work restrictions?
- What other demands on your time do you have?
- Which of the skills and experiences on your to-do list are your most immediate priorities?
- What development activities could help you acquire these skills and when?
- Is there specific training you require?
- Do you have a mentor? Is this something you would consider and if so, when?

Top Tip: Try to be realistic about how long various activities are likely to take you. It is often better to focus on what you really need than to attempt to fit in too much at once. Speak to those who have experience with similar activities about realistic time management.

Activity 4: Building your DNA ecosystem

This activity is meant to help you think purposefully about who you want (and need) to be part of your support system, both personally and professionally.

Think expansively here about who you want to seek out beyond your supervisory team, whether that is in your School, discipline, sector or community.

By curating your DNA ecosystem, you will equip yourself with the right team to help you achieve your goals and navigate challenges without solely counting on your supervisors.

Knowing what you need and want help with will make it easier to approach people or groups with intention.

To build your DNA ecosystem, it's useful to think of the following questions:

• What exactly do I want help with?

• Who are the right people to support and mentor you with this?
   And why them specifically?

Here are a few (non-exhaustive) reasons:

• they can provide you with key insights and/or information;

• they are part of your peer network of postgraduate researchers and can provide support and insights;

• their career journey is of interest and/or inspiring;

• their approach to research and/or research methods is of interest to you and you want to learn more;

• they have an expertise that is outside of your discipline or your supervisory team's capacity but that you would like to develop independently;

• their network/contacts can support your training, professional or career development goals;

• they are part of your cultural community, and their lived experience can support you in navigating challenges.

You may find the Careers Service resources on building your professional profile useful here:
Careers Service build your professional profile

Essential links to support services

There are a number of central services at the University that can offer training, support and opportunities. The Doctoral College webpages give an overview of these.

Doctoral College webpages

You can find some more information on each service below:

The Institute for Academic Development (IAD) offers a comprehensive programme to support your professional development.

IAD provision includes:
- A monthly newsletter
- 'Getting started with your postgraduate research degree' – An interactive online course for all new postgraduate researchers that runs once per semester in October and February.
- Online modules on Research Ethics and Integrity
- A comprehensive offer of short workshops which cover a range of skills development
- Support and information on the University Three Minute Thesis (3MT) competition
- Online resources and guides on a range of topics

IAD – Postgraduate Researchers

The **Careers Service** supports you in exploring and managing your career ambitions through individual consultations, resources, workshops, and access to advertised PhD internships and other job vacancies.

Careers Service

Information Services has a range of workshops and resources that can support you with your research data management, library skills, digital skills and open research.

Information Services – Research Support

Information Services – Digital Skills and Training

English Language Education supports postgraduate researchers whose first language is not English. You have access to 1:1 writing support and self-study resources.

English Language Education

The University's **Student Wellbeing Service** is made up of Wellbeing Advisers working across Schools to provide wellbeing support to students. All students can access support from a Wellbeing Adviser tailored to their health, emotional and pastoral needs as part of the Wellbeing Service.

University of Edinburgh – Student Wellbeing Advisors

The University is committed to creating and sustaining **Equality, Diversity and Inclusion**.

University of Edinburgh – Equality, Diversity, and Inclusion for Students

The University provides **disability and learning study support** to students with a range of disabilities, learning differences, neurodiverse and health conditions.

University of Edinburgh – Disability and Learning Support Service

Edinburgh University Students' Association has an **Advice Place** with a team of caseworkers who can support you during your time in Edinburgh. Check out the website below to see what they can support you with, including academic concerns, complaints and conduct, accommodation, and wellbeing.
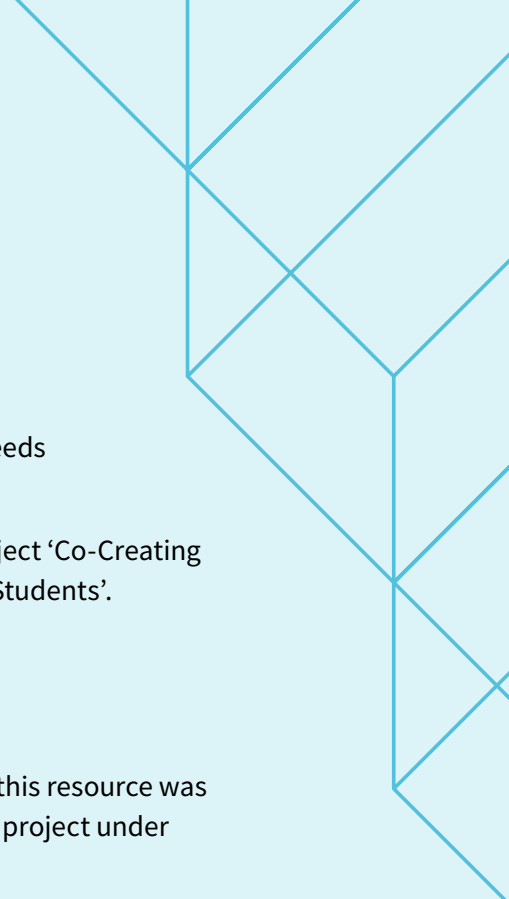
Edinburgh University Students' Association – Advice Place

There are many **PGR Societies and Peer Support Groups** at the University. The Doctoral College maintains a current list on its SharePoint.

Postgraduate Research Societies and Peer Support Networks [ease login]

There are various **Staff Networks** representing a variety of groups across the research community. Many of these networks also welcome postgraduate research students, such as the **Staff BAME Network**.

Staff Networks – Research Staff Hub – University of Edinburgh

This handbook accompanies the 'Creating your Development Needs Analysis' form. There is also a handbook for supervisors.

These resources were developed through a cross-University project 'Co-Creating a New Development Needs Analysis for Postgraduate Research Students'.

You can find out more about the process here:

Co-creating a new DNA project information

If you require this document in an alternative format, please contact:

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