ESRC Postgraduate Training and Development Guidelines Third Edition (2022)

Contents

Section A: Introduction and purpose of the Guidelines

1.   Purpose

To ensure that social science graduates remain at the forefront internationally, our renewed vision for postgraduate training is:

> *To develop globally competitive social science researchers; able to operate in interdisciplinary, collaborative, and challenge-led environments; across a range of sectors; and that are characterised by diverse backgrounds and experiences.*

The ESRC Postgraduate Training and Development Guidelines (2022) set out our expectations for the content and delivery of postgraduate training funded by ESRC through our network of Doctoral Training Partnerships (DTPs) and Centres for Doctoral Training (CDTs).

These guidelines indicate the minimum requirements that Research Organisations (ROs) will need to meet to facilitate the provision of high-quality training. The requirements specified in these guidelines will apply:

- from June 2022 for proposals for ESRC Doctoral Training Partnerships (DTPs) and Centres for Doctoral Training (CDT)
- from October 2024 for all new ESRC-funded studentships.

To deliver our vision, it is important to note that these guidelines differ from the previous *Postgraduate Training and Development Guidelines (2015)* in terms of expectations and deliverables. They place a stronger focus on postgraduate researchers being at the centre of training provision and the importance of a robust, ongoing and evidence-based training and development needs analysis for all postgraduate researchers (PGRs). They seek to ensure that our training keeps pace with cutting edge methods, particularly in relation to the skills required to undertake research with large and complex data, and that all students have access to strong specialist training. There is an expectation that the delivery of training will be more flexible in terms of both content and mode of delivery to better meet the training and development needs of the individual postgraduate researchers and their subject area.

2.   Evidence Base: The need for change

Our renewed vision for postgraduate training, and these guidelines, have been informed by three reviews and evidence gathering exercises – *Review of the PhD in the Social Sciences; Data-Driven Research Skills Scoping Review[1]*, and the *Strengthening the role of the TNA Report.* These reviews have been supplemented via ongoing engagement with key stakeholders including students, supervisors, research organisations and employers. Taken together, the evidence suggests:

- All ESRC-funded students should undertake activity to build an understanding of applying '*Research in Practice*' as a core component of their training
- The opportunity for students to cross disciplinary (both within and beyond the social

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[1] Due to be published later in 2022

sciences) and sector boundaries through their training will enhance future multi-disciplinary understanding and interdisciplinary/cross sectoral collaboration and learning

- ESRC should update its research methods training requirements and encourage Research Organisations (ROs) to co-develop methodological provision with input from industry and relevant training providers
- There are skill gaps in ESRC's *Postgraduate Training and Development Guidelines (2015)* in relation to:
  - Project management & design
  - Data management - handling, managing and curating
  - Digital skills – building apps, web-scraping, machine learning
  - Data analysis –analysing large and complex data, coding
  - Dissemination skills – dissemination strategies and new pathways to publication, including using digital platforms
- That the current structure of core methods training can hinder learning – as they are often delivered at scale, spread over the academic year, and do not sufficiently recognise prior learning
- Core qualitative and quantitative training is delivered separately, leading to silo learning
- There is high anxiety about quantitative and data-driven research learning, exacerbated by large class size
- There remains a shortage of quantitatively trained social scientists so this should continue to be a particular area of focus for ESRC
- Quality methods teaching require complex knowledge base and this is not always recognised by ROs
- That there is too much of a 'one size fits all' approach to current provision
- Changes are needed to make specialised training more visible and accessible
- Supervisor support is critical in ensuring postgraduate researchers access the breadth and depth of training available
- Greater recognition needs to be given to the skills and experience students have gained through prior study and work.
- The training needs analysis (TNA) process needs strengthening to ensure it provides a holistic, reflective and evidence-based assessment of students' learning and development needs
- We must do more to increase the diversity of the student population and ensure that we support a positive and inclusive research culture which support student's health and wellbeing

3. Introduction to key changes

The national network of Doctoral Training Partnerships (DTPs) and Centres for Doctoral Training (CDTs) remain a major achievement and have been central to delivering high-quality social science training, developing capacity and deepening research capability. To extend this success, whilst recognising the continual changing demands on UK social science, these guidelines have been reorientated to emphasise:

- The student must be at the centre of the training process
- That training should reflect both the needs of the individual and of their discipline/interdisciplinary area or field of study

- The importance of a holistic, evidence-based development needs analysis in determining the training and development students receive
- The importance of innovation in core training content and delivery, particularly in relation to data management, digital skills and the skills to analyse large and complex data
- The importance of '*Research in Practice*' as a core component of the doctoral experience for all ESRC funded students, including the need for placement opportunities for all
- The importance of DTPs[2] considering broadly how they can meet students' training needs including the opportunities to source specialist training from other providers including the National Centre for Research Methods, ESRC investments, other appropriate training providers or by working in partnership with other organisations.

Collectively these changes are intended to make the training we provide more responsive and to address concerns that there is too much of a 'one size fits all' approach to current provision. While social science research masters will continue to make an important contribution to the training landscape, we want them to form part of a wider mixed economy and ESRC masters funding will normally only be awarded to students who do not already have a social science research masters.

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[2]Unless otherwise stated, when we refer to DTP this also applies to CDTs.

Section B: Training provision

1.   Introduction

The ESRC continues to place a strong emphasis on providing broad-based social science research training that equips researchers with the knowledge and skills to manage a successful research career and/or to contribute to society in other ways. The learning outcomes that underpin becoming a competent social science researcher remain unchanged (see below and **Annex 1**). It is expected these will be achieved through a combination of formal training, the recognition of prior learning and experiences as well as opportunities coming from being part of rich and diverse research training environments. How training provision is delivered must be student-centred and flexible.

The starting point for training provision must be a rigorous, evidence-based development needs analysis (DNA) which is undertaken at the point of application and is reviewed annually. We have moved to the term DNA rather than TNA to signal that we conceptualise needs analysis broadly stretching beyond training courses and workshops to include a range of other developmental and experiential opportunities This must be undertaken for all ESRC-funded students. This will ensure that students receive the specific training and development that they, and their broader disciplinary areas, require.

The DNA is not only crucial for determining current and future development needs but also for documenting where students may have already achieved the learning outcomes of a competent social science researcher via previous learning or experience. For example, a suitable level of competency for a particular discipline may already have been achieved at the undergraduate level as per Quality Assurance Agency benchmark guidelines, prior postgraduate/masters modules completed and through professional experience. See **Section C** for more on DNAs.

The delivery of training will be flexible and dependent upon the needs of the research student. Flexibility in this context relates to the structure and mode of delivery. See **Section C** for more on flexibility.

2.   Expectations for core research skills training

The expectations for core research training are organised around three main thematic areas; *conceptual, general research* and *specialist*. ESRC recognises that this will require changes to the content and delivery of existing training provision, particularly in relation to digital methods and the skills required to analyse large and complex data (for both quantitative and qualitative research) and as part of the DTP commissioning is providing funding to DTPs to support this (see **Section D**).

2.1   Conceptual

The aim is to ensure that students understand the breadth of social science methods extending beyond the qualitative/quantitative binary to i) make informed choices about their research design (current and future); and ii) engage critically with papers/research outside their discipline during their doctoral training and throughout their career.

Students are expected to be able to demonstrate the following:
- comprehension of principles of research design and strategy, including an understanding of how to formulate research questions which are amenable to empirical investigation and an appreciation of alternative approaches to research
- understanding of a broad range of research methods; quantitative, qualitative, and mixed methods including awareness and understanding of AI and machine learning as research tool and the value of using existing surveys and repositories of visual, text data, social media and big data.
- understanding of appropriate data generation and use either through sampling, subject selection or via the use of secondary data from existing sources
- understanding of analytical approaches, including data analysis software
- understanding of the significance of alternative epistemological positions and how epistemological choices impact on findings produced
- understanding of the application of good ethical practice across the entire research process including data ethics which is inclusive of digital approaches and
- understanding of how to conduct and disseminate research in a way that is consistent with both professional practice and the standard principles of research ethics
- understanding Open Science principles and practices to enhance reproducibility

These learning outcomes can be achieved and/or demonstrated in a variety of ways, including professional experience, employment, undergraduate education, master's education as well as specific training offered by ROs and DTPs. For example, attainment can be documented via DNA using evidence such as previously completed modules underpinned by QAA benchmark statements.

2.2   General research

The aim is for students to have the general research skills required for postgraduate study and to equip them for their future career, whether within academia or beyond. We place considerable emphasis on the deeper embedding of general research skills into substantive research training, and it is the responsibility of ROs and their partners to indicate clearly how they will integrate the acquisition of these skills into their doctoral programmes and/or through enhanced opportunities for experiential learning.

Project management
- Understanding the full life cycle of the research process is essential; from the initial idea for a research question, through the development of a research proposal that may attract funding, to the archiving of data and, where appropriate, the completion of end-of-award reports to research sponsors.

Data management and analysis
- Regardless of the specific methods used in their research, all students will be expected to demonstrate competency in the skills required to manage data effectively, whether they are using existing data or creating new data (including digital data capture). This includes developing an appreciation of intellectual, practical and ethical issues:
  - Using Open Science principles and practices from the beginning of a project to enhance reproducibility;
  - Checking, cleaning, and preparing materials for analysis using reproducible processing pipelines;

- Data quality assurance measures including data cleaning, fixing inconsistencies and removal of coding errors;
- Manipulating and coding data;
- Ability to record and represent different modes of data (such as textual, aural and visual) using a range of data visualisation techniques;
- Secure data storage;
- Preparing materials/data/code for dissemination or deposit in a suitable repository for wider use (including the relevant analysis code and /or documentation to permit reproducibility);
- Archiving;
- Safe methods of disposing of data and General Data Protection Regulation (GDPR)

Students must also be made aware of the [UKRI Open Access Policy](#) and its requirements.

Ethical and legal issues
- The ESRC expects issues relating to ethics, confidentiality and legality to be explicitly and systematically addressed as an integral and embedded part of core training provision, beyond any understanding developed as part of a student's conceptual training.
- The ESRC expects that supervisors will have access to specialist training in this area to be able to help students acquire the specific knowledge, skills and understanding of research ethics procedures that they need in the context of their particular research areas and related research design options.
- The ESRC Framework for Research Ethics ([Framework for research ethics – UKRI](#)) sets out our approach, aims and methods in ethical evaluation and conduct of research, including doctorate-level research. It is expected that research students will be made aware of this document as well as ethical review requirements of their institutions and subject associations as part of their core training. Students are also covered by the UKRI governance of good research practice policy, and all funded students should be made aware of this guidance. Please see the UKRI website for further information: https://www.ukri.org/news/ukri-publishes-governance-of-good-research-practice-policy/

Digital and bibliographic skills
- ROs will be expected to include training for all students in certain basic skills. With particular reference to the student's own research, this training is likely to cover:
  - the identification and use of library resources
  - other bibliographic sources and methods
  - techniques for preparing literature reviews, and keeping up to date with the literature
  - preparing a personal research bibliography
  - developing and/or using databases and accessing bibliographic databases
  - procedures for the evaluation of research, including peer reviewing and the preparation of book reviews

Language skills
- The ESRC believes that the opportunity for training in a second language is desirable for research students, particularly where there is a perceived need within the student's research project. All DTPs must have provision for language training for those students that require it.

<u>Skills for engaging with users and for maximising the impact of research</u>
- Maximising the impact of social science research is a core principle for ESRC, and it is increasingly essential for students. This should include understanding the processes or mechanisms through which impact can be achieved as well as the challenges they might face in doing to. ESRC investments in postgraduate training are responsible for helping students develop relevant skills to engage with interested parties across a range of sectors.
- The ESRC expects institutions to provide training that will enable postgraduate students to:
  - identify potential benefits and beneficiaries of their research from the outset and throughout the lifecycle of their project/research
  - recognise both the academic and 'real world' context of their work and the opportunities and challenges of engaging with both
  - develop the skills required for effective co-production of knowledge
  - develop skills to promote effective and accessible communication of research findings to non-specialist audiences and relevant stakeholders
  - develop skills that foster the better use of research and research outputs in policy and practice settings
  - develop communication skills that support outreach and public dialogue, throughout the research process and beyond

<u>Exploitation of research and Intellectual Property Rights (IPR):</u>
- Students should be made aware, as an integral part of their research training, of the possibilities and problems of academic or commercial exploitation of their own research activities, as well as the research activities of others. This should include an understanding of their RO's intellectual property policy as well as relevant training.

2.3   Specialist (formerly known as advanced)

This includes in-depth subject or disciplinary methodological and theoretical training, and training and support in accessing and using 'cutting edge' data that supports data driven research whether qualitative or qualitative. All DTPs should be able to demonstrate a strong quantitative offer across a breadth of social science disciplines and ensure digital methods are embedded in the training for all students[3]. However, it remains the responsibility of each DTP to determine the substantive content of specialist subject specific training, associated with their own training pathways and drawing upon areas of strength.

The level and intensity of the training may differ from subject to subject. In the area of research methods, for example, compulsory training in Economics may include a range of high-level quantitative tools and techniques which would not be considered essential within other areas of social science. Similarly, in Social Anthropology it may include sophisticated qualitative techniques that would not be a uniformly required elements for all social scientists.

<u>Specialist subject/field knowledge</u>
- Students should be made aware of the breadth of the field of enquiry, the range of

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[3] Quantitative skills and Digital Methods are emphasised as theses have been identified as specific skills gaps – we remain committed to the provision of high quality training across the breadth of social science methods.

constituent specialisms and the resulting spread of research paradigms and theoretical positions. However, students do not need to demonstrate detailed/depth understanding of all paradigms and approaches, only in-depth knowledge of those area relevant to their work. Students need to demonstrate they are:

- well informed of the latest thinking and ideas in their field of enquiry – including subject knowledge, theoretical positions and research methods – from a range of perspective
- able to appreciate the basis on which the knowledge in the field has been derived
- able to use this knowledge to make a reasoned defence of the theoretical traditions and research techniques that they ultimately may have chosen (or rejected) during their research.

Specialist qualitative skills

- Qualitative methods need to be trained to a level that would allow students to understand and interpret a range of phenomenological or textual data. Competency should be developed in the methods appropriate to the student's specific discipline. Typically, students specialising in qualitative methods would be expected to be able to:
  - Use Analytic methods for offline and online textual, aural and visual data
  - Engage in participatory, multi modal and arts-based research approaches
  - Historical, comparative and archival methods.
  - Undertake discourse, content, or narrative analysis.
  - Competency in analysis of qualitative data, using a computer assisted data analysis package, such as NVivo, MAXQDA, or Atlas-ti.

Specialist quantitative skills

- Assuming a basic level of statistical literacy, quantitative research training should develop skill levels by using methods appropriate to the student's specific discipline. Typically, those students specialising in quantitative methods would be expected to be able to:
  - Collate, analyse and interpret complex numerical data that may be presented in tabular or graphical form or other data relevant presentation formats
  - Understand and undertake inferential statistical tests for parametric and non-parametric data
  - Understand statistical inference, from cross sectional and longitudinal sample surveys and inference from research using experimental designs
  - Understand the application of specific statistical approaches to data analysis and links to research design specifics (e.g. ANOVA, correlation, linear/non-linear regression, multivariate modelling, fixed and random effect models, growth trajectory and multi-level modelling)
  - Apply data reduction and grouping methods, such as factor and cluster analysis, multidimensional scaling and other such data reduction methods linked to research design and data format
  - Utilise longitudinal analysis, event history analysis, agent-based modeling or similar as appropriate

2.4   Expectations for core *Research in Practice* training

The aim of *Research in Practice* is to develop students' transferrable skills and provide practical opportunities to apply their theoretical knowledge and methodological skills in

different contexts including placement opportunities. Through *Research in Practice*, we want to ensure students are prepared to engage in collaborative and challenge led research across sectoral and disciplinary boundaries, both within and beyond the social sciences, and that they have the wider core skills which are essential for academic and non-academic careers alike. It will also help develop students' awareness of the breadth of careers open to them as social science graduates.

Research in Practice should comprise a suite of options aimed at developing students' abilities to:
- to apply research skills in different research contexts
- to collaborate across sectoral and disciplinary boundaries
- communicate with impact, develop networks, entrepreneurship and leadership skills[4]
- proactively engage in their own personal development and career direction

Students will be expected to participate in a range of opportunities throughout their period of study, tailored through their DNA according to their previous experience, goals and development needs. The design of high-quality, innovative professional development options should:
- recognise and promote the diversity of careers open to students
- recognise the diversity of the student body, including opportunities for students with professional experience to share learning with wider cohort
- place an emphasis on experiential, immersive and reflexive learning opportunities
- explore opportunities to co-develop opportunities with employers, users and learned societies
- foster collaboration between students and across disciplinary boundaries

Examples of relevant professional development options that address these principles include: placements (detailed below); projects-interdisciplinary within academia, collaborative or co-produced addressing user challenges; challenge-based, interdisciplinary masterclasses, retreats and summer schools including input from policy, employers, users; student-led initiatives (e.g. seminars, conferences, roundtables, networking events); coaching, mentoring, action learning, peer support; interactive skills development workshops; career 'insights' sessions.

Where relevant, DTPs will be expected to work with their ESRC Impact Acceleration Account to support the development of knowledge exchange and impact skills, including to identify and develop opportunities for high-quality student placements and collaborative studentships.

All DTPs are encouraged to work with other parts of their organisations which can help deliver the objectives of R*esearch in Practice*, from knowledge exchange officers to policy institutes.

Students should also be signposted to external sources of advice and expertise for career development and transferable skills, especially that provided by the Research Councils and other national organisations that champion the personal, professional and career

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[4] Leadership skills may include: strategic thinking in the context of international research, understanding funding processes and opportunities, understanding opportunities and challenges of collaboration

development of doctoral researchers. ROs should commit to developing the potential of postgraduate researchers and to encourage students to take advantage of specific support provided by organisations like Vitae (http://www.vitae.ac.uk/).

As part of *Research in Practice*, our ambition is that all students have the opportunity to complete a placement in academia, policy, business or civil society organisations with it being the norm rather than an exception that all students undertake a placement. This will give them the practical opportunity to develop their transferrable skills and apply their research skills in different contexts. By the time of the DTP mid- term review in autumn 2026, partnerships will need to demonstrate that they have the infrastructure, range and volume of opportunities to enable them to deliver this and evidence that they are on target for placements to be the norm for all students. For more detailed information on our expectations for placements see **Annex III**.

Opportunities to undertake research informed teaching can form part of *Research in Practice* however it is important that this is paid and not a condition of funding. Students undertaking teaching or other employment-related responsibilities should receive appropriate training and support. The training provided should be indicated in proposals for accreditation. It is beneficial to research students if they can obtain teaching experience, for example with seminar groups, or any other work that helps develop personal and professional skills.

Section C: Delivery

The ESRC wants to facilitate flexibility in the delivery and timing of the training provided to ESRC funded postgraduate students. A flexible portfolio of postgraduate training platforms allows programmes to match the particular needs of individual disciplines and interdisciplinary subject areas, as well as the diversity and individual needs of researchers.

This flexibility will be underpinned by an effective DNA that is in place from the outset of the studentship and enables the student, with their supervisor, to identify the training and development opportunities required to both complete their PhD and support their continuing development.

1.   Flexibility

The delivery of training will be flexible and dependent upon the needs of the research student. Flexibility in this context relates to:

1.1   Flexibility in terms of structure

There is no expectation that all students will follow a standard pathway for research training. Training should be delivered through a flexible portfolio of options. The choice of training pathway should be informed by student's initial DNA (at the point of application) based on their prior knowledge and experience and the needs of their discipline/area of study.

ESRC will provide 3.5 years of funding as standard which includes time for a 3-month *Research in Practice* placement. Under the 2015 Guidelines 3 years of funding was provided as standard. Beyond providing time for the *Research in Practice* placement the extra time is to provide space for additional specialist training and wider *Research in Practice* activities.

For students awarded 3.5 years funding it is expected that they will have a strong grounding in the core conceptual, general research and subject/field knowledge skills required to start their PhD. With the focus of training during their PhD being the acquisition of advanced skills through the probing of their specific research question and *Research in Practice*.

Funding for training at a master's level will not normally be available to support students who already have a master's degree in the social sciences. Where a student already has a social science master's degree but lacks some of the core (conceptual, general research and subject/field knowledge) skills required to commence a PhD (described in **Section B**), they may be allocated funding to enable them to undertake the additional training requirements as well as their PhD, for example, 3.75 or 4 years.

Master's provision is particularly important for supporting the participation of under-represented groups and there will also be the flexibility for DTPs to award master's funding (to those who already have a social sciences masters) where the needs of the discipline require higher level training ahead of a PhD[5], or to support interdisciplinary skills development including discipline hopping.

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[5] See Annex IV for an example in Economics

Where master's training is required, this can be delivered through a flexible portfolio of postgraduate training platforms for up to 4.5 years of funding, which can include:

- *1+3.5programme* – support for a research training masters and PhD
- *4.5 programme* – *integrated masters and PhD*
- *2+2.5 programme* – funding to cover an extended masters, followed by a shorter PhD programme

The ESRC does not see this list of flexible structures as exhaustive. It is expected that ROs will have the mechanisms in place to promote appropriate integration of the training for both full-time and part-time students and ensure they are integrated within the cohort regardless of the training structure.

Where a training pathway extends beyond this, the DTP/CDT should set out how they will support the additional period of training.

The ability to provide training throughout the PhD programme creates greater flexibility in the timing of training delivery. Rather than being frontloaded into a master's year, it can be spread out across the PhD programme, matching delivery more closely to actual needs.

The RO will be expected to have robust progression and upgrade procedures in place to assess formally individual students across all structures.

All doctoral projects should be designed and supervised in such a way that students are able to submit their thesis within the funded period, as defined at the outset of the project.

An illustration of the training pathways students could follow is provided below:

- A student who has successfully completed an undergraduate degree with comprehensive research methods component. The DNA process will identify and provide an evidential base for the prior training that the students have completed. This evidence may be drawn from transcripts or by aligning the degree to the relevant QAA benchmark statements. Given the depth and breadth of methods taught at undergraduate level, this student would <u>not</u> be expected to undertake the conceptual training component and may only need aspects of the general research component. The student, instead, should focus on specialist training in the early stages of the PhD. Additional or supplementary training can be undertaken later in the degree. Training in this case may be delivered by compulsory modules, short courses, research incentives and so forth.

- A student who has successfully completed a social science undergraduate degree without social science methods training. The student would need to undertake conceptual, general and subject/field knowledge modules and funding for a master's year should be included in their award. This would be supplemented with short courses etc. later.

- A student with a relevant degree who has undertaken a social science masters with

research methods training. They can evidence much of the required core conceptual, general and subject/field knowledge and the DNA process identifies that they will supplement this with specialist short courses as part of their standard PhD funding.

- A student with a relevant degree who has undertaken a social science masters without research methods training. The DNA process will identify the additional conceptual and general research training the student needs to undertake as part of their PhD and the time required for this.   They will not normally receive masters funding (see example of exception below).

- A student with a relevant degree, social science masters training but who requires additional and in-depth training. It may be the case in some subjects that students do need to undertake an MRes in order to successfully complete the PhD e.g., economics or where there are moving into new interdisciplinary areas

- A student from outside the social sciences. This student may benefit from a full masters programme. However, this will depend upon the disciplinary norms of both a degree that the student has and the social science discipline they are entering. For example, it may be that a student with an arts and humanities background will have a relevant skill set for some social science subjects.

- A student who has relevant professional experience. The DNA process will identify the skills that the individual must determine the training that the student needs to undertake. In this case it may be a combination of conceptual and subject/field knowledge, with aspects of general research or it could be the student has sufficient core training whereby they would focus on specialist training. Is important that the student's experience is fully recognise so as not to needlessly duplicate training.

1.2   Flexibility in relation to mode of delivery

While delivering training at scale in large groups may be efficient, evidence indicates it is not the most effective way for students to learn or develop skills, nor is it the best way to teach certain concepts, ideas or skills. As such, flexible training provision will be encouraged, such as short courses, research intensives, and online or blended learning to ensure the best pedagogical fit between content and mode of delivery. It is also important that the timing of the training is also considered, and the 'front loading' of training be avoided but instead appropriately distributed across the life course of the PhD. Flexibility gives the DTP the option to provide learning opportunities and training in a variety of formats including, but not restricted to, full taught modules, short courses, intensive training, blended learning, online teaching, small-scale seminars, lectures, workshops and so forth. Such flexibility and delivery also means that training can be repeated and made available to students from other DTPs or other individuals or groups where there are learning needs (see Data Driven Research Report).

1.3   Flexibility in how training is provided

It is not expected that all specialist training is provided by the research organisation or DTP. Instead, students may receive training from other research organisations, other DTPs or CDTs, the wider portfolio of ESRC research investments, the National Centre for Research

Methods or other appropriate training providers. Such flexibility enables students to receive the most appropriate training and allows DTPs to focus the development of additional training provisions in their areas of recognised expertise and specialism. Flexibility offers the opportunity for DTPs to both focus on their areas of excellence in terms of delivering high-quality training whilst also sourcing training from others. For example, it could be that an institution or DTP has expertise in a particular method, such as agent-based modelling, and offers training in that area across the network whilst sourcing specialist training in other methods, such as auto-ethnography, from elsewhere.

Flexible training and development that locates student needs at the centre of the process necessarily means that research students will demonstrate their achievement of the learning outcomes for being a competent social researcher in different ways.

The manner in which the learning outcomes are achieved is expected to vary for different subject areas and disciplines and for students with varying levels of prior knowledge and experience. It is not necessary to give equal time to training in each topic area.

2.   Supervision

Supervisors play a critical role throughout the doctoral experience and we want to support and promote high quality supervision through our DTPs.

ESRC expects DTPs to have procedures are in place to ensure consistent high quality, effective supervision.

The ESRC would normally expect supervisory arrangements to be put in place at the outset of a studentship regardless of the training structure or pathway followed.

The ESRC requires dual supervision, or supervisory panels, to guide the research and that supervisors are equipped with the necessary knowledge to direct students to other relevant structures and resources within the DTP for support beyond their own area of expertise or experience. The expectations of both supervisors and students should be clearly set out in RO or departmental codes of practice, and in internal quality control mechanisms. These should be reviewed regularly, and students and supervisors should be made aware of the procedures in place.

There must be a clear policy on the training and development of supervisors.   For new or inexperienced supervisors, this might include being partnered with, and mentored by, an experienced co- supervisor and how early career researchers can be embedded within supervisory teams to support their ongoing professional development. For more experienced supervisors this is expected to include how they will ensure that they remain well versed in new and emerging methods and techniques.

It is important that supervisors are engaged with the DTP and able to support students to get the most out of their ESRC studentships and the range of opportunities available to them. DTPs are expected to have a clear strategy for communicating with supervisors and ensuring that they are fully engaged with the aims and objectives of the DTP and the specific requirements of an ESRC studentship.   This should include their role in supporting equality, diversity and inclusion and student health and wellbeing. ESRC expects all supervisors to have mental health first aid training to enable them to have a monitoring and signposting

role.

DTPs are encouraged to promote supervisory communities of practice and explore ways to incentivise supervisors coming together from across consortia to share experiences, address common challenges and extend professional networks.

ESRC will expect ROs to describe what formal systems are in place for monitoring the performance of supervisors, for identifying their training and professional development needs, and for ensuring that these are met. This should also include procedures for addressing non-satisfactory performance.

3.   Development needs analysis

DNA is fundamental to achieving flexible and responsive doctoral training and a more bespoke student experience. Students should benefit from a tailored DNA experience, that allows for specific training needs, learning outcomes and *Research in Practice* elements to be clearly defined. At the outset of the PhD, the DNA will be used to inform the structure of funding that is appropriate for each student, taking account of prior knowledge and experience and at a minimum we expect this to be reviewed annually.

In response to the [Review of the PhD](#) ESRC commissioned a review of the existing literature and landscape of doctoral training needs analysis to identify best practice and areas for potential development and innovation. The aim was to support DTPs in developing an effective DNA process. DTPs will be able to use the flexibility of their grant to support the development of their approach to development needs analysis.

The review identified a number of core principles to inform the development of DTPs DNA processes:

1. *Ensure that DNA is promoted as a core and regular component of the doctoral journey:* In particular, the application and induction periods should be used to communicate the broad aims of DNA within the wider PhD experience and ensure that students feel ownership of a bespoke process that is aligned to their needs and aspirations.
2. *Foreground the importance of student self-reflection and support this through a range of tools and approaches*: Reflection should be encouraged and supported as a critical part of DNA, throughout the entirety of the doctoral journey.
3. *Equip supervisors to effectively support the DNA process*: Set clear expectations for supervisory input to DNA and provide training to support supervisors in navigating DNA conversations, enabling a robust and equitable approach to be embedded across the board.
4. *Support exploration of a broad range of careers and development opportunities:* This includes maximising input from internal and external stakeholders, as well as partnerships for experiential learning. Specific consideration should be made of diversity and where particular groups might experience difficulty in accessing opportunities.
5. *Evaluate the effectiveness of support, tools or other interventions relating to DNA*: Gather evidence on the effectiveness of interventions and work in partnership with the students and supervisors to flex and adapt their approach where required.
6. *Make use of aggregated data (alongside other means of consultation) to identify gaps in provision and areas for development:* Be creative in identifying and responding to emerging needs.

DTPs will be required to report to ESRC on development needs and emerging gaps in provision through their annual report and ESRC will undertake assurance checks on a sample of DNA forms.

4.   Collaborative studentships

Collaborative studentships, developed in partnership, with non-academic organisations are an important part of DTPs offer, providing direct benefit to students and host organisations and providing important co-funding.

Undertaking a studentship in partnership with a non-academic organisation gives students access to training, facilities and expertise not available in an academic setting alone. It can also give students an opportunity to develop a range of valuable skills, and significantly enhance their future employment prospects.

For the users themselves, the benefits of collaborating include accessing experts and cutting-edge research, accessing innovative ideas that could improve policy or practice, and enhancing organisational creativity, performance and productivity.

With the increased emphasis on providing *Research in Practice* placements we do not want to lose the benefits collaborative studentships bring. We are therefore setting a target that at least 15% of the studentships we fund should be collaborative with non-academic organisations in the public, private or civil society sector. Collaborative studentships can also include a placement as part of the opportunity. While co-funding is encouraged it is not required.

Whilst we are not prescriptive about the form that collaborations must take, ROs must support students in developing skills to work in collaboration with a range of partners and this must also be embedded within the RO's own resources for supporting knowledge exchange activities.

The general principles of what activities count towards the collaborative target are:
- To contribute to the 15% target collaborations do not need to be co-funded, though there are clear benefits to securing co-funding;
- Collaborations must be with a non-academic organisation in the public, business or civil-society sector;
- Collaborations must include substantive knowledge exchange and not just one way engagement (eg, data collection).

CDTs must be developed in collaboration with non-academic partner(s) and for at least 20 per cent of the funding to be supported by non-academic partner(s) or other sources (except other Research Council sources) or the research organisation.

5.   Equality, diversity and inclusion

ESRC is committed to increasing the diversity of our student population and ensuring that we provide an inclusive and supportive environment for all.

We want to ensure that the most talented students are attracted and supported to pursue

postgraduate training and a career in research, whatever their background and regardless of where they undertook their first degree.

ESRC DTPs are expected to take a leading role in promoting Equality, Diversity and Inclusion (EDI) and should act as a beacon for EDI within the research and training community.

All DTP applications must include an EDI strategy that considers EDI broadly, recognising the full range of protected characteristics and the socio-economic backgrounds of students. It should include the embedding of EDI principles at all levels and in all aspects of research and training practice in the DTP, including the selection and management of doctoral candidates and cohorts. It should also detail the support systems in place to protect and promote students' physical and mental health and wellbeing.

6.   Building upon established standards

In submitting their proposals, research organisations are reminded that doctoral training needs to meet national requirements for the quality and standards of academic awards, particularly section B11 of the Quality Assurance Agency (QAA) UK Quality Code for Higher Education ([Quality Code (qaa.ac.uk)](), and the relevant QAA subject benchmark statements.

Section D: Operational

ESRC funding for the delivery of postgraduate training will be primarily delivered through Doctoral Training Partnerships (DTPs). Centres for Doctoral Training (CDTs) may be funded as part of strategic initiatives and, unless specified otherwise in the call documentation, will be subject to the same expectations with DTPs.

1. Research Organisation or partnership level proposals

Funding will be awarded at an RO level to help facilitate the development of more coherent RO- and consortium-wide core training and development programmes in, for example, research methods and transferable skills. We hope that RO-level funding will ensure that postgraduate training provision is embedded within the RO's own strategy for social science and that it is integrated with the RO's wider resources such as knowledge exchange and career support.

2. Doctoral Training Partnerships

DTPs will offer a high-quality and coherent postgraduate training infrastructure across a broad range of social science disciplines and must be multidisciplinary. Partnerships involve strategic engagement between the Research Organisation(s) and the ESRC in developing the overall programme of training.

2.1 Academic partnerships for the organisation and management of DTPs

There is no limit on the number of ROs that may form part of a collaborative DTP; however, the collaborative proposal must demonstrate that the partnership is meaningful and coherent, and that it is demonstrably enhancing the quality of training provision within the partnering ROs as well as developing a strong cohort identity across all students funded via the DTP.

2.2 Expectation of allocation mechanism

Each DTP will receive an allocation of studentships, for those who have demonstrated strength in ESRC priority areas (and been awarded extra studentships) this will include a broad strategic steer to direct some studentships to address the Council's key capacity-building priorities. DTPs will also be able to allocate some studentships to support their own strategic needs including to address areas of under-representation. However, beyond the allocation of strategic steers, the majority of studentships must be allocated through an open competition across the DTP as a whole.

2.3 DTP governance

All DTPs should have in place robust governance arrangements that will enable effective decision making and engagement with all relevant stakeholders (including students) to deliver their objectives. The DTP's governance structure must be linked directly to the RO's lead for its strategy for social science to ensure oversight and scrutiny of the DTP.

2.4 Leverage of funding

Whilst no formal target will be placed on it, DTPs are encouraged to use the funding provided by ESRC to leverage funding from other sources and thereby maximise the number of studentships available. Co-funding needs to recognise the full cost of the studentship and not just stipend and fees rates.

3. Changes to provision

The ESRC encourages partnerships to improve and develop their provision continually – it is important that DTPs can respond to new training needs in an agile manner. DTPs can update and evolve their training provision, whilst maintaining standards in their core and/or specialist training, without immediate reference back to ESRC. Any changes to provision will be monitored via the annual report process.

DTPs will be able to apply for major changes to their award, including the inclusion of new partners, or disciplinary or thematic areas, on an annual basis.

4. Funding to support innovation in content and delivery of training

To support innovation in both the content and delivery of training to ensure a flexible and cutting-edge training offer, DTPs will receive funding of up to £150,000 to support the development of new training content and delivery approaches to address the skills gaps and structural issues identified in **Section A**.

This funding will be available for a period of three years from October 2023, - a year ahead of the first cohort of students starting, to provide time to develop and test the new training.

The funding can be used to fund:
- staff time
- development of materials
- delivery infrastructure.

We are keen to facilitate the sharing of knowledge and development of partnerships across DTPs to deliver high quality training (and also across the sector more broadly). To support this ambition, DTPs will need to identify a training lead for this work who will form part of a ESRC co-ordinated DTP training network.

5. Associated studentships

The ESRC will continue to provide associated studentships, formerly known as grant-linked or project-linked studentships, to support strategic research initiatives. Eligibility to include associated studentships on grant proposals will be confirmed within the call guidance.

To be eligible for associated studentships, the student and their supervisor must be based in a pathway within an accredited DTP or CDT. The supervisor must also be either the Principal Investigator, or a Co-Investigator, on the grant proposal.

6. Flexibility in the use of studentship funding

DTPs have flexibility in the use of studentship funding, subject to UKRI terms and conditions. This includes flexibility to:

- Fund any type of studentship using the flexible part of their allocation. This means that as well as 'standard' studentships, collaborative awards with non-academic partners or studentships co-funded with other Research Councils or agencies can be supported. Applicants will need to set out their expertise and approach to collaborative awards in their application.

- Part-fund studentships. This means that ROs can add their own funding to support studentships or secure co-funding from public-, business- and civil society-sector sources as long as at least 50% of the funding for the studentship comes from the ESRC allocation. This will provide leverage, helping to increase the volume of studentships. Where studentships are co-funded, the funding must be based on the whole notional cost of a studentship, ie including an element for overseas fieldwork, Research Training Support Grant (RTSG), etc.

- Increase stipend levels above the minimum level to help recruit/retain students in national shortage areas. This may, for example, be particularly important in the recruitment of mature students, common in practice-based disciplines where there is a recognised need to strengthen research capacity.

7. Facilities

At the outset of their research training, students should be given a clear indication of the basic facilities available for their use. The ESRC suggests that these should include:

- Access to appropriate space to work, including a designated desk should it be required
- Access to telephone and photocopying facilities
- Computing, email and internet access
- Laboratory and technical support, where appropriate
- Appropriate library facilities and information services
- Opportunities to meet and network with other students and researchers; and
- Support for training opportunities and for attendance at conferences and other relevant events.

The ESRC expects ROs to ensure that students with disabilities have all possible access to courses and programmes of study. This is linked with the duties of the Equality Act 2010, which include the duty to anticipate the learning needs of disabled students within all aspects of curricular provision, including lectures, field trips, exams and placements. Such anticipation is likely to include flexible arrangements for access to resources, physical access to facilities, and the provision of, and access to, specialist resources such as computer software and library materials. It also means that the ESRC recognises that ROs will need to approach all requirements in these guidelines with sufficient flexibility to meet the needs and capacities of disabled students.

Section E: Monitoring

1. Monitoring by the ESRC

The monitoring of DTPs progress towards goals and the evidencing of impact are important.

This will be conducted in a number of different ways including:
- Annual reports and meetings
- Assurance checks in relation to steered studentships and development needs analysis
- Researchfish
- Student surveys
- A mid-term review
- Provision of accurate and timely information on doctoral candidates' projects to ESRC
- Monitoring of submission rates
- Good practice sharing events

2. Mid-term review

All DTPs will be subject to a mid-term review in Autumn 2026. The review will assess the progress DTPs have made in delivering their objectives and allow us to consider whether any adjustments are required to awards in response to the changing research landscape. For example, to address emerging research priorities and to increase our DTPs connectivity and alignment to other UKRI doctoral training investments as part of the commitment UKRI has made to increased collective working on talent. Awards will be for five consecutive cohorts of students starting in October 2024. The first three cohorts are guaranteed; however, the final two cohorts will be dependent on the outcomes of the mid-term review.

Our ambition is for all students to have the opportunity to undertake placements. By the time of the DTP mid- term review in autumn 2026, partnerships will need to demonstrate that they have the infrastructure, range and volume of opportunities to enable them to deliver this and evidence that they are on target for placements to be the norm for all students. DTPs are expected to demonstrate a fairly even balance of academic and non-academic placements.

3. Submission rates

UKRI expect doctoral projects to be designed and supervised in such a way that students are able to submit their thesis within the funded period, as defined at the outset of the project.

Therefore, all students should submit by the end of their funded period.

The ESRC will continue to monitor annually the aggregate submission rate for all ESRC research students in each RO. This is done on the basis of statistics provided by ROs on the submission dates for ESRC research students. ROs that fall below a 70 per cent submission rate will be vulnerable to having a sanction placed which will make them ineligible to host or receive ESRC research studentships for the following one or two years.

Annex I: Competent social science researchers - learning outcomes

The overall goal of the training will be the development of fully trained and competent social science researchers, who have:

- a competent understanding of the debates within disciplines that inform their field of study
- an overview of the philosophy of research methods and how this informs research design, the methods chosen, the means of analysis and the representation and presentation of information and data
- an ability to understand and use a range of research techniques appropriate to their subject area, and who are conversant and sympathetic to approaches used by other fields
- an ability to integrate what they have learned in addressing research in ways that are characteristic of an experienced, highly effective researcher
- a competent understanding of the use and impact of their research within and beyond academia and the mechanisms through which this might be achieved
- an ability to engage with relevant users at all points in the research process, from developing and shaping research questions, to continued engagement and relationship building throughout the research process (thereby aligning non-academic needs to shape processes where appropriate) and to share findings in ways specific to the interests of the audience
- an ability to communicate their research findings effectively to a wide range of audiences
- an ability to engage with a range of partners whether internationally, through collaborative working and/or across interdisciplinary fields of research
- an appreciation of the skills required to become a research leader in their field and an understanding of the opportunities available to them to support the development of their career.

Annex II: Principles of research design

Students must be able to understand the connection between research questions or hypotheses and the tools required to address them and gain practical experience of applying some of those tools. More generally, students must be provided with training that enables them to demonstrate their capability to:

- define and formulate research problems and questions, and, where appropriate, formulate hypotheses that can be tested;
- understand the rationale for using particular qualitative or quantitative research methods;
- understand the relationship between empirical research and theory generation and testing (theory-evidence links);
- understand different forms of sampling, sampling error, and case selection, and potential implications for the interpretation of research findings;
- understand and apply the concepts of generalisability, validity, reliability, and replicability (recognising that there are different perspectives on how these may be defined); and
- understand the integrated or complementary nature of the relationship between methods in mixed methods research designs.

It is expected that pathways will offer opportunities for students to develop more sophisticated understandings of these issues in the course of their subject-specific training in the first or subsequent years of postgraduate research training.

Annex III: Research in Practice – placements

Research in Practice should be a core component of the doctoral experience for all ESRC funded students. It will comprise a suite of options aimed at developing students' skills in a number of core areas relating to employability including:

- Ability to apply research skills in different research contexts
- Ability to collaborate across sectoral and disciplinary boundaries
- Communication with impact, developing networks, entrepreneurship and leadership skills
- Ability to proactively engage in their own personal development and career direction

It will also increase students' awareness of the breadth of career opportunities available to them.

As part of this, it is ESRC's ambition that all students have the opportunity, and for it to become the norm for them, to complete a high-quality placement in academia, policy, business or civil society organisations as part of their training. This will give them the practical opportunity to develop their transferrable skills and apply their research skills in different contexts. Placements are an opportunity to build public engagement skills and develop networks. Placements may also have the potential for students to make an impact early in their career and help to address real world challenges. The placements will also provide added value for both the host organisation and the DTP.

This guidance summarises the key expectations of placement opportunities, ESRC will work with DTPs to develop the key documents to support this ambition including examples of good practice, collaboration agreements, guidance for host organisations and approaches to evaluation. DTPs will have considerable flexibility in how they develop their placement offer to meet the aims outlined above.

Type of placement

We recognise that students come to doctoral training with a range of experiences and aspirations. To support all students to participate in and gain value from placements, DTPs must provide a diverse range of opportunities with maximum flexibility on when they can be taken, and they will be expected to work with host partners to ensure opportunities are available both physically and virtually and on a full and part time basis.

Placements could be with academic and non-academic organisations and examples of the form these can take is provided below:

- A placement forms part of a collaborative or CASE-style studentship with the student spending time at the host partner organisation for the placement.
- Placements with non-academic organisations in the public, private or voluntary sector.
- Placements with a research centre.
- Placement as part of an overseas institutional visit
- Placement within an institution's professional support services
- Research Assistant internships, where students work on standalone projects with academics from across disciplines.

DTPs must ensure that a breadth of opportunities are available and that students are

encouraged to consider placements within academic and non-academic organisations and ESRC will work with them to identify opportunities both within its major investments and with strategic partners.

DTPs will therefore be expected to demonstrate a fairly even balance of academic and non-academic placements.

All placements must comprise a clear programme of activity/project which will develop the students' transferrable skills and ability to apply their research skills in different contexts. Placements should not be used as a substitute for temporary staff or to cover business as usual within a host organisation. Placements should focus on a discreet project, challenge or research question which will enable students to build on the skills being acquired through their doctoral studies.

DTPs and students are encouraged to use innovative ideas when creating placement opportunities, recognising that collaborative working with others in academia, policy, business or civil society organisations can take many forms.

The type of placement a student undertakes will depend on an assessment through their DNA of their previous experience and future aspirations to ensure that any potential placement recognising where the value would be added to the student's skill development.

Length and timing of placement

Three months of funding will be provided to support the placement, and the placement is expected to normally be this length in total[6]; however, this does not need to be taken in a single block, with the same host partner or using the same format throughout.

There must be opportunities for placements to be taken on a part-time as well as full-time basis.

Although the placement should not be held within the first few months of the PhD and should not take place during a masters period, the DTPs/ will have flexibility on when the placement is undertaken to allow them to suit the needs of the individual students within the cohort.

Where possible, students should be encouraged to undertake these placements outside of their own institutions to allow the opportunity to engage across a wider network. However, we appreciate that there may be individual cases where a student's personal circumstances would limit their ability to move outside of their local area and these should be discussed on a case-by-case basis. Academic placements must not be undertaken with the student's current supervisor and/or research team and must take place outside of their home department. There will also be opportunities to build connections with locally based organisations, local government offices and policy positions which will allow students to undertake these placements locally.

Host requirements

ESRC wants to develop high quality placements which are mutually beneficial to students and

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[6] Where the DTP or student identifies an opportunity which meets the spirit and objectives of research in practice but the placement varies in length this can be supported through the flexibility of the grant.

hosts.

Placements provide a range of benefits to hosts; they can:
- Complete research, project work, policy/programme evaluations or produce reports
- Bring a fresh perspective to the organisation and help link practice with the latest academic knowledge.
- Help build and access a network of researchers
- Provide staff with experience of supervising and working with researchers
- Help recruit doctoral graduates

ESRC will provide funding to cover the student's stipend and fees for up to three months, to allow them to undertake a placement within a host organisation. Host organisations would be expected to make a contribution to the additional costs associated with the placement, for example the students travel and subsistence costs. However, the DTP may also consider in-kind contributions in exceptional circumstances (for example where the partner does not have the resources to make a financial contribution).

Funding

Students will continue to receive their stipend for the duration of the placement. They will continue to be registered as a student and therefore cannot receive additional payment for the placement. Exceptional expenses may be claimed if essential for the placement to take place.

Students who do not undertake a placement will not receive the additional three months of funding.

Evaluation

Our plans for incorporating placements as a central component of our doctoral training are ambitious and we want to ensure that we are developing high quality opportunities which benefit students and hosts. We will therefore be carefully monitoring the feedback and outcomes of the placement by inviting students and host organisations to complete a feedback form.

Using the feedback collated, we will review the quality, range and number of placements being undertaken as well as gather feedback from students and supervisors on their experiences of undertaking a placement. The mid-term review point of the DTPs will also be used as a mechanism to reflect on the introduction of placements and how our approach will be developed for the second half of the DTP's period of funding.

Operational details

DTPs will be responsible for co-developing placement options with host partners to advertise to students through an open competition. Students would then apply directly to the host organisations, with the host processing the applications. All opportunities are expected to be advertised equally, except for those that may be part of collaborative studentships and cannot be opened up more widely.

ESRC will help broker arrangements with other ESRC investments and potential host organisations.

Students would also have the opportunity to source their own partners, with DTPs/CDTs needing to ensure that the minimum requirements to host a placement have been met.

Annex IV: Example of increased disciplinary depth of training – Economics

Within Economics there is a broad consensus of the level of disciplinary training required for graduates to produce research which could be published in leading journals and make the graduates internationally competitive in the academic and professional job market. The level of core technical training required is generally delivered through a one-year MRes, that is undertaken in addition to an MSc. This typically includes core methods training in theoretical and applied research in microeconomics, macroeconomics and econometrics. It also includes training in research design, production and communication. Subsequently, in the PhD programme, the required specialist research training in narrower research areas can be delivered flexibly through semester-long courses, masterclasses and expert workshops. These can either be undertaken over the course of a year or over the duration of the PhD. Centralised generic, or transferable training, is often complemented by the discipline-specific knowledge that Economics departments have, for example, on the job market or publishing practices.

This training does not, necessarily, expose students in Economics to the broad range of social science methods ESRC would expect all of the students it funds to have experience of to be able to engage critically with papers/research outside their discipline during their doctoral training and throughout their career. Students in Economics would still be expected to meet the expectations in relation to conceptual, general research skills and *Research in Practice* detailed in **Section B** but, due to the need to front-load specialist training in the MRes, training across these broader requirements may take place later in the PhD than in other disciplines.

DTPs may, therefore, allocate funding for both the MRes and PhD to students in Economics who have already completed an MSc. The maximum funding that can be allocated is 4.5 years. Where an institution's programme is longer than this, the DTP will need to consider what other support can be offered to ensure that students are able to submit within their ESRC-funded period, for example by co-funding all or part of the studentship.

Economics is being used an example as the depth of disciplinary training required is well established and consistent across different ROs. It may not be the only example but where a discipline wants to make a similar case there would need to be consensus, potentially facilitated by the relevant learned society, and for that case to be made consistently across DTP applications.