



Nuffield Future Researchers Guide for Project Supervisors

Introduction

You may be familiar with Nuffield Research Placements from having been a project host in previous years or this may be your first encounter with the programme.

The ongoing COVID-19 pandemic, and the resulting conditions affecting schools, businesses and universities, make the typical four-week on-site placement that you may have been involved with before (or may have been expecting to supervise this year) impossible. However, it has offered an exciting opportunity to explore the benefits and possibilities of virtual learning.

The students we focus on – high-attaining Y12 or S5 students from socially and economically disadvantaged families – are facing a substantial period of self-directed virtual learning. Cognisant of this, we have re-oriented the placements programme to become a remote activity that will develop students' research and essential skills while, crucially, continuing to be centred around access to and collaboration with a knowledge expert. This new model, renamed the Nuffield Future Researchers programme, will still require a high degree of motivation and self-direction from the students and we will be looking for project supervisors to fulfil a subject-specific role when tutoring and guiding these young people through a structured experience. This partnership with project supervisors will be a novel experience for many students and also, therefore, an exciting one.

We and our network of National and Regional Coordinators are very much looking forward to working with you. This document sets out the broad terms of the revised programme, what we would expect project supervisors to do and what we expect of the students.

The Nuffield Future Researchers programme

Profile of students

The Nuffield Foundation and its Regional Coordinators oversee the recruitment of students to the programme. Students must satisfy certain academic criteria, including being on a post-16 education pathway that can develop their science, technology, engineering or mathematics (STEM) skills. This allows us to include a wide range of AS-level, A-level, Scottish Higher and equivalent qualifications, including those that have a strong focus on data skills. Students must also come from families where they are either the first in their family to apply to higher education and/or have been in receipt of free school meals. You can find more detailed information regarding this on our website, under [“Eligibility Criteria”](#).

Students identify areas of interest that may be explored in a summer research project. Once selected for the programme, our Regional Coordinators will act to help match students' interests to the available project topics. Exact or close matches are not always possible; we encourage students to be very open-minded about tackling topics that are outside their immediate academic areas of interest. Research is an increasingly interdisciplinary matter and students can really benefit from exploring new subjects and themes; areas that their focus at school or college may not bring into view.

Anticipated student programme activities and associated supervisor input

The Nuffield Future Researchers programme will see students completing up to five modules of study (see Annex 1). The first three will be completed by the student alone and will help to prepare them for tackling the research project. They will look to test and develop their analytical, data, communication, self-efficacy, and research and critical thinking skills. There is the option for you to be involved in the *Developing Research Skills* and *Developing Data Analysis and Numerical Skills* modules should you wish; further information on this is outlined later in this document.

The fourth module is where the majority of input from, and collaboration with, a project supervisor is required. We anticipate that this module will comprise activities set by the project supervisor within a Virtual Learning Environment (VLE) and will include tasks such as the detailed analysis of research papers and associated materials. This stage may also involve some data analysis; however, the premise is that the entire exercise may be tackled from the student's own home. They will, of course, wish to refer to you (and, perhaps, to any other expert colleagues you would like them to talk to) to help shape their thinking or test their ideas. For this, the VLE can provide avenues of communication via a virtual chat function and video conferencing. More information regarding this will be outlined later. Annex 1 sets out an example of what the expectations are but this is not prescriptive and can be amended and adapted to suit individual circumstances.

The final module tests the students' ability to communicate their research findings. Students complete the programme by submitting their written work, which, for most, also triggers the payment of a £400 bursary when the programme concludes. This written work is in the form of a report and a poster; students will have been provided with guidance and templates for both by the Nuffield Foundation. Students, however, may also ask for guidance on these pieces of work from you, as project supervisors will hold more specialist and technical subject knowledge. Your constructive feedback on both is encouraged but we support any decisions from you regarding setting clear boundaries with the student on what this feedback, and the processes around it, will look like.

We hope to showcase the students' achievements at a celebration event (or events) later in 2020, which you would be very welcome to attend. Moreover, students can use their work not only as part of their university applications but also for submission to the British Science Association Crest Awards scheme.

Introducing yourself as a project supervisor

As this set of activities will take place without the usual opportunity for an induction meeting, we feel it would be useful for you to introduce yourself to the student(s) you will work with. We have a PowerPoint-based template for you to use to help convey a sense of who you are, your area of expertise and what excites you about research! Your Regional Coordinator will provide you with these template slides.



As you may 'meet' each other on video calls, it would be very helpful for you to include a picture of yourself on the introductory slides. It would also be helpful to use these introductory slides to suggest the three most important papers, articles or related conference videos etc that students should read or watch to give them an overview of your work and interests.

Providing a research question

The first substantive task for project supervisors is to propose a research topic or topics that can be addressed through desk-based research. Ideally, the research questions should also be tight enough in scope that students can, over a two- to four-week period:

- Summarise the aim and objectives of the project within the wider context of the research (to include ethical, social and economic implications);
- Identify a range of approaches, select the most appropriate approach to investigate the research question and justify this choice;
- Make good use of materials and sources available;
- Select and use the research skills (and appropriate applications – e.g., software packages) required to investigate, gather information, analyse and interpret data and findings (drawing on the *Developing Research Skills* and *Developing Data Analysis and Numerical Skills* modules); and
- Employ the essential skills identified in the *Building Essential Professional Skills* module to refine the focus of their research and work successfully with the project supervisors.

We have developed a template project plan to help students work with you to pin down a good research question that can be completed in the available time (see Annex 2). This has been structured to cover the main features of their work and will, we hope, give clarity to the focus, the methods, the evidence base and the timeline.

We expect students to spend 60 to 70 hours on the fourth and fifth modules. The estimated input and time for project supervisors will vary depending on the amount and timings of your availability, how much time you are able to commit to supporting students, how many activities or tasks you would like to set them via the VLE, and whether you would like to support students in other aspects of the programme. For example, some project supervisors have indicated that they would like to be involved in supporting students with their research and/or data analytical skills during the second and third modules. This is entirely optional, but it may give you the opportunity to develop a rapport with your student(s) and to help you tailor the research element to their skills and strengths.

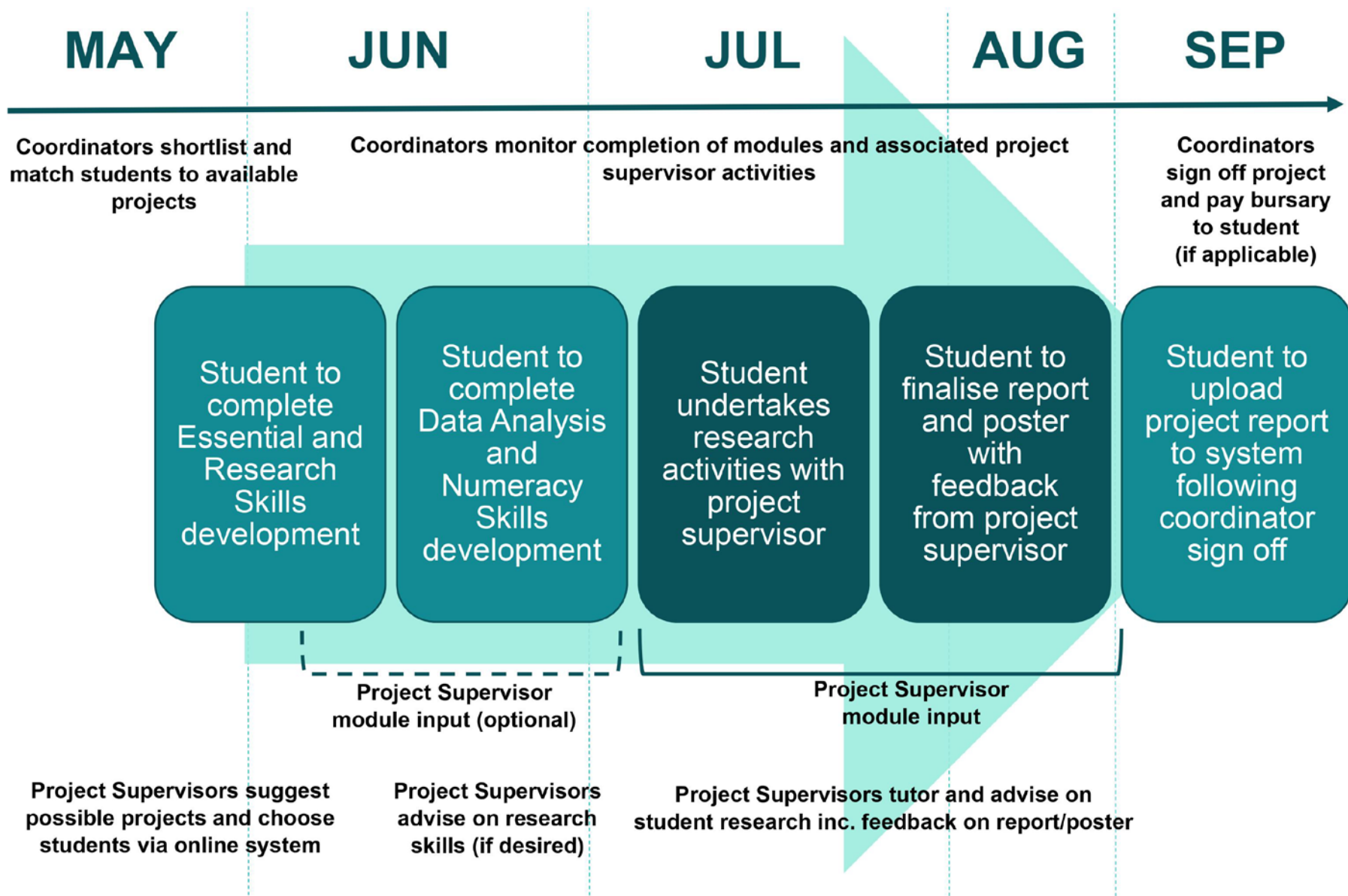
As a project supervisor, it is possible that you may also want to be involved in the selection of the students – or you may wish to leave this up to the Regional Coordinator so that you can focus your energy and interest on the project. The extent to which you can be involved in the selection process is best agreed between you and your Regional Coordinator. Please also feel free to discuss any thoughts you have on your estimated available time and capacity with them, too. You can find their contact details on [this interactive tool](#) on our website.

Timeline and flow of activities

We anticipate the following timeline for the Nuffield Future Researchers 2020 summer programme:

May	Students to begin and complete <i>Building Essential Professional Skills</i> module ahead of their virtual inductions with coordinators
June	<ul style="list-style-type: none">• Regional Coordinators to hold virtual inductions with students• Students to access Project Supervisor Introduction PowerPoint slide set• Following induction, students to begin <i>Developing Research Skills</i> and <i>Developing Data Analysis and Numerical Skills</i> modules via VLE• Following induction, student to supervisor interaction can begin via VLE
July - August	Students to begin and complete ‘Investigating a research question in collaboration with a knowledge expert’ and ‘Communicating Your Research Evidence’ modules via ongoing collaboration with Project Supervisor
September	Deadline of completed report and poster upload to the online system

The broad flow of activities for the 2020 Nuffield Future Researchers programme is illustrated on the next page and provides more information regarding when your interactions with students may occur.



Supervising students remotely

Safeguarding

Students will be guided to manage their interactions with you to avoid overwhelming project supervisors with questions and correspondence. Part of this can be achieved through your introductory slide set, in which you can set out your expectations for them when it comes to interaction (slide set template to be provided separately).

As most of the students are under 18 years of age, we have also developed a safeguarding policy (to be provided separately) that should ensure that both you and the students feel safe and secure in all of your interactions. We will ask that both you and the student read this safeguarding policy carefully and agree to adhere to it for the duration of your involvement with the Nuffield Future Researchers programme, by virtually signing an agreement form (to be provided separately).








Alongside this, you may wish to undertake some dedicated professional development on safeguarding. The National Society for the Prevention of Cruelty to Children (NSPCC) offers an online course (<https://learning.nspcc.org.uk/training/child-protection-schools>) for £25, which will be useful in any school-focused outreach work you undertake. You may also wish to consider obtaining 'basic disclosure' clearance from the appropriate national body¹. Any additional costs incurred from additional training or disclosure checks will need to be covered by your organisation.

Online supervision


For many of you, and particularly through these recent weeks, managing teaching, learning and mentoring remotely is an increasing feature of your working lives. For others, it may be quite new. Colleagues at the University of Glasgow Researcher Development have produced some tips and hints² both to introduce some effective practice and to reassure you that you are doing things well (see below).

Supervising remotely during the Coronavirus crisis

Advice from the University of Glasgow

Be realistic about what you can do <i>You don't have to pretend you're 'on call': set clear limitations and communicate them to the student(s)</i>		Be realistic about what your student can do <i>Assume your student is facing undisclosed difficulties & have realistic expectations</i>	
Make sure your student(s) access essential Nuffield Future Researchers info <i>You don't need to mediate: remind them to check the Virtual Learning Environment</i>		Establish your communications <i>Agree a frequency and technology that works for you both: manage expectations & demonstrate support</i>	
Signpost support networks <i>Now and then check that your student(s) aren't feeling isolated: direct them towards their teachers, coordinator or peer group</i>		Help your student make the most of their time <i>Help them prioritise: signpost career development and training opportunities</i>	
Reassure your student <i>Everyone wants them to succeed and will do all they can to help: let them know there's plenty of support they can access if needed</i>		You don't need to know all the answers <i>Contact your Nuffield Future Researchers' Regional Coordinator if you have any questions or concerns</i>	

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¹ England: <https://www.gov.uk/request-copy-criminal-record>

Northern Ireland: <https://www.nidirect.gov.uk/services/apply-online-basic-check>

Scotland: <https://www.mygov.scot/basic-disclosure/apply-for-basic-disclosure/>

Wales: <https://www.gov.uk/request-copy-criminal-record>

² Some of these hints and tips have been amended to be relevant to the NFR programme

Your Regional Coordinator and their role

The Regional Coordinators play a number of important roles in the delivery of the Nuffield Future Researchers programme. They will be involved from start to finish and will **be your key point of contact**, acting as a mediator between you, as project supervisor, and any student(s) you work with. You can find their contact details on [this interactive tool](#) on our website.

The Regional Coordinators have been working through the early part of the year to help identify eligible students and to ensure that they meet both our socio-economic and academic eligibility criteria and that they complete their online application to the programme.

Part of this process involves asking students to identify areas of research that may interest them. In parallel, project supervisors will be asked to highlight what research projects they may have to offer that are appropriate for a remote research activity, suitable for the age and ability group, and can be completed in a period of around two to four weeks (not necessarily full-time).

We expect there to be relatively regular communication between Regional Coordinators and project supervisors in the initial stages of negotiation and of student and project selection. This may pick up again as the projects draw to a close and project supervisors wish to offer reflections back to the Regional Coordinator on completed work, the outcomes of the programme more generally, and how well the students have risen to the challenge.

The following table sets out some examples of the roles and expectations of Regional Coordinators and project supervisors over the course of the projects.

Issue	Regional Coordinator	Project Supervisors
Student selection	Takes the lead and will work with project supervisors to finalise a good match to a project.	Will work with Regional Coordinators to bring about a good match to project topics.
Student induction	Initiate and prompt project supervisors to complete their introduction slide set. Ensure students are clear about roles.	Responsible for project-based introduction and clarification/negotiation over topics and scope.
Research projects – initiation and focus	Able to remind and clarify over roles, responsibilities and outcomes. Also, can play a role where there is any confusion or dispute.	Principal driver of the research project and the intellectual capital behind it. Able to guide and coach students to engage with data, literature and other resources.
Research projects – conclusion	Oversight of outputs required to satisfy programme completion. Interaction with project supervisors to gather feedback and reflections as well as final outputs.	Coach students to conclude research projects to expected standards and to draw legitimate conclusions and perspectives. Liaise with Regional Coordinators over feedback.

We hope that this guide provides a comprehensive overview of the Nuffield Future Researchers programme and the role of the project supervisor.

If you have any further queries or concerns, please contact your Regional Coordinator via the details found in [this interactive tool](#) on our website.

Annex 1: Nuffield Future Researchers – Module expectations

Module	Student expectation	Project supervisor expectation
Building essential professional skills	Work through initial, core activities that are provided by the Regional Coordinator and completed through independent study within the Kahoot app (max 1x hour). Supplementary activities can be completed through the VLE following your virtual student induction.	Following completion of the core activities by the student, Project Supervisor to provide their introductory slide set to the student through the VLE.
Developing research skills	Work through core activities accessed and completed through the VLE with further optional activities available if desired.	Optional engagement with students is possible here, facilitated by the Regional Coordinators. Input to involve advising and coaching student(s) as they tackle activities concerning research skills.
Developing data analysis and numerical skills	Core data analysis activities to be accessed and completed through the VLE with further optional activities available if desired. Numeracy activities include completion of the National Numeracy Challenge (www.nnchallenge.org.uk/nuffield). Resulting certificate to be uploaded to the VLE. Together with <i>Developing Research Skills</i> module, completion of activities should equate to approx. 10 to 15 hours.	Optional engagement with students is possible here, facilitated by the Regional Coordinators. Input to involve advising and coaching student(s) as they tackle activities concerning data analysis skills.
Investigating a research question in collaboration with a knowledge expert	Collaborating with your project supervisors to work up a research question that interests you and that you can spend around two to four weeks exploring, through activities set by your project supervisor within the VLE. Together with <i>Communicating Your Research Evidence</i> module, completion of activities should equate to approx. 60 to 70 hours.	Coach and support student(s) as they shape their ideas and begin to explore evidence and research. Build on <i>Developing Research Skills</i> Module by fostering student(s) thinking skills and analytical questioning. Provide them with a variety of concise activities through the VLE that allow them to investigate the area of research fully. This module may comprise a tapering approach to communication, with video and phone calls taking precedence in the initial stages and the balance shifting to the VLE chat function as the project progresses.
Communicating your research evidence Parts I and II	Part I – Written report Part II – Poster presentation You will take the ideas (and questions!) that have come from your review of evidence and draft a research report and poster presentation. You can ask your Regional Coordinator and project supervisors for constructive feedback on this before it is finalised. Further guidance on both your report and poster can be provided by your Regional Coordinator.	Coach and support student(s) as they shape views on what the evidence is telling them. Guide student(s) to write a synthesis of the evidence they have digested in the form of a report and poster. Guidance given to the students on these two pieces of work can also be shared with the project supervisor so that you are aware of what is being asked of them. This module may be completed towards the latter stages of the tapered approach to communication, where the balance has shifted away from video and phone calls and towards communication through the VLE chat function.

Annex 2: Project plan template

Student name	
Project supervisors name	
Research topic	
What the project aims to do	
Sources of evidence to be used	
Research techniques	
Time period that evidence will cover	
Datasets to be used	
Analytical approaches (including software)	
Are there any ethical issues and how will they be managed?	
What will you have done by the end of week 1?	
What will you have done by the end of week 2?	
What will you have done by the end of week 3?	
What will you have done by the end of week 4?	
Date of last update	