



Co(D)laboratory

Universities for  
Nottingham

# Demystifying Research and PhDs: A Brief Guide



# ABOUT THE GUIDE

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## The Purpose

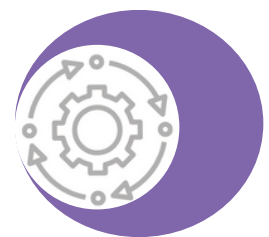
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The aim of this resource is to demystify some aspects of UK research for people who are not familiar with research activities and organisations, and to provide some insights into how university research - specifically postgraduate research degrees (PhDs) - fits within the wider context of UK research.

This guide is based on a research project undertaken in 2023, which aimed to understand how Nottinghamshire residents understand and view postgraduate research degrees (PhDs). In response to some of the findings, this guide outlines key information about local research projects, and provides details of some pathways into university research careers, including access to local PhD research opportunities.

A [report](#) published by the Campaign for Science and Engineering in 2023, based on extensive research with over 18,000 members of the UK public, found that a significant proportion do not perceive that UK research benefits them.

As key local organisations which support research and fund researchers at all career stages, including PhDs, it is important that universities communicate the benefits of their investment in research. However, while there are a growing number of PhD students doing research in UK universities, there is little evidence about how – and indeed whether – PhD degrees are widely understood, and to what extent any potential benefits of PhD research are perceived by the public.



## The Process

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This guide is based on research which responds to the need for more transparency around UK research activity - including university research - and attempts to demystify how people might access research careers, such as potentially through doing a PhD.

The guide was developed based on findings from 4 focus groups undertaken in late 2023 with residents from across Nottinghamshire. Participants from a range of different communities, educational backgrounds and demographic groups were asked about their understandings and perceptions of PhDs, the extent to which they felt university-based research could tackle local challenges in Nottinghamshire, and whether they were aware of any local research projects. Participants did not need to have been to university to take part.

Focus group participants were asked to give their views and input into an initial draft of this guide in 2024, which was revised accordingly, to ensure that it is useful and accessible.

# DEMYSTIFYING RESEARCH & PHDS

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## What is research?



People may use different terms such as 'research & innovation' or 'research & development' when they talk about research. The [Campaign for Science and Engineering](#) broadly defines research as: "activities which lead to the creation of a new product or service, or that solve a problem".

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## Why is research important?



Research has a range of social and economic benefits. It can lead to solutions that improve public health, technological advancements, security, and defence, as well as understanding of social and cultural issues. Research also creates jobs, educational opportunities and supports growth in local and national economies.

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## Where is research done?



In large and small organisations - and in different locations depending on the type of research. Research settings can include factories, laboratories, hospitals, archives, libraries, museums, archaeological sites, universities, as well as community venues.

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## Who does research?



Individuals and groups of researchers working in both public and private sectors including in businesses, charities, campaigning organisations, universities, the civil service, local councils, and NHS bodies.


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## Who funds research in the UK?



Most research needs dedicated time, money, and resources to support progress, and can be funded privately or publicly. [UK Research and Innovation \(UKRI\)](#), a public body, invests in science and research and is allocated funding by HM Treasury, which receives its money largely through taxes. UKRI provides funding for researchers, businesses, universities, NHS bodies, charities, and non-governmental organisations (NGOs).

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## What types of research do universities do?

Universities in the UK support research across a wide range of subjects, from sciences, engineering, medicine and health-related subjects to social sciences, creative arts, and humanities.

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## Who are researchers at UK universities?



Technicians, students, research academics, teaching staff and professional services staff can all do research based at universities. Academics employed to do research may have the title of 'Research Fellow', 'Lecturer', or 'Professor'. Students learn how to do academic research by doing a research degree (a PhD) and work on a specific project to gain this degree. To find out more about what types of people study for a PhD in the UK, click [here](#).

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## What research happens in Nottinghamshire?



Universities, businesses, charities, and public sector bodies (e.g. the NHS) all do research which aims to improve life for people across Nottinghamshire. Researchers at both NTU and the University of Nottingham undertake research across subjects which aim to better understand issues locally, nationally, and internationally. To find out more about research focusing on Nottinghamshire-specific issues and challenges, visit [Co\(!\)laboratory](#) and [City as Lab](#).

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## What do you need to become a researcher at a university?



Some level of expertise and enthusiasm for a chosen area of research. Often professional research experience is needed to be employed in a university research role, and usually a research-related degree such as a PhD which demonstrates high-level research skills. However, there are initiatives to support people without research experience or degree to develop research skills, and pursue research-related opportunities.

To find out more visit [Co\(!\)laboratory](#).

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## What kinds of careers do researchers have?



Researchers pursue a range of different careers and often move between employment sectors. Of those who do a research degree (a PhD), only a minority work in university-based research roles in the long-term, with most moving into roles in sectors such as healthcare, education, engineering, and business. For some examples of researchers' careers click [here](#).



## What is a PhD?

A postgraduate research degree given by a university

Involves completing an original piece of research on a specific topic

An opportunity to develop research skills and become an independent researcher

A PhD can be called a “**doctorate**” because people with PhDs are able to use the title ‘Dr’

You become a student to do a PhD, studying either full-time or part-time



## What does a PhD involve?

A research project lasting for 3-7 years (depending on if studying full-time or part-time)

An undergraduate and Master's degree are often (but not always) required

Working under supervision of existing academic researchers

Producing a written thesis of around 80,000 words and making an original contribution to knowledge

Passing an oral exam (known as a viva)



## Who does a PhD?

People who are interested in research and who are very motivated to learn more about a particular subject

People who want to become academic researchers traditionally complete a PhD

There are around 100,000 PhD students in the UK

Funding can be applied for to pay for university fees and/or living expenses while students study

Around 75% of PhD students in the UK study full time for their degree



## Why are PhDs important?

The UK's economy and society benefits; research and researchers help us to better understand scientific, social and cultural issues and problems, e.g. the various impacts of Covid-19

PhD students become trained researchers through a PhD, producing research on specific topics within a short time frame

For some examples of the kinds of PhD research currently being done in Nottinghamshire, visit:

<https://ufncollaboratory.ac.uk/>

# FURTHER INFO AND CONTACT

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## Additional Project Information

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The findings from this research project are being used to inform the wider work of [Co\(l\)laboratory](#), a new place-based research programme supported by Nottingham Trent University, the University of Nottingham, and the Universities for Nottingham partnership.

An eight-year-long programme funded by Research England, Co(l)laboratory brings together Nottingham's two universities with a growing range of diverse community organisations to co-create and deliver research projects designed to address local challenges.

Please note that this project has gone through the relevant NTU research ethics procedures and was given a favourable ethics opinion by Nottingham Trent University's Schools of Architecture, Design and the Built Environment, Art and Design, Arts and Humanities Research Ethics Committee in September 2023.

## Project Contact Details

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If you have any further questions regarding this project, please contact Dr Rachel Handforth, Co(l)laboratory Training and Development Lead, Doctoral School, Nottingham Trent University, 50 Shakespeare Street, Nottingham, NG1 4FQ.

Email: [Rachel.Handforth@ntu.ac.uk](mailto:Rachel.Handforth@ntu.ac.uk)

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