Resources for developing your research skills

Resources covering multiple research skills

- Tips on Doing Impactful Research, created by Silvana Hultsch and Ronja Lutz, explains how you can increase your ability to do impactful research.
- How to do great research is a site giving advice on many aspects of doing research, aimed primarily at PhD students in computer science but featuring a lot of broadly applicable advice.
- How to do research that matters discusses techniques for producing impactful, decision-relevant research.
- The Research Skills Toolbox from CERI links to many resources for honing your research skills.
- How Effective Altruism Can Help Psychologists Maximize Their Impact explores how to incorporate ideas from EA into psychology.
- Researching and writing for Economics students by David Reinstein

Meta-learning

- Learning how to learn

Productivity

- The 80/20 rule can be a useful heuristic when prioritising your time.
- Struggling with perfectionism or prioritising? Consider half-assing it with everything you've got.

- [Getting things done](#) by David Allen describes a popular productivity system (summary of the [general approach here](#)).
- [Deep Work](#) by Cal Newport looks at the importance of focused work without distractions.

Reading papers

- [How to read a paper](#), a guide to the 'three pass' approach.
- [Literature review matrix](#), a worksheet to help you follow the 'three pass' approach.

Developing a research question

- Our advice on [creating a theory of change for your research](#) explains how to increase the impact of your research by building a step by step plan of how you will achieve your goals.
- [Scribbr](#) has this useful framework for identifying and developing a research question to writing a research proposal.
- [Improving your statistical questions](#) is a free online course by Daniel Lakens.

Open Science and pre-registration

Pre-registration

- [What it is](#) and [how to do it](#) (for registering randomized control trials specifically see the [AEA RCT registry](#)).
- Also see this list of journals doing [registered reports](#) (see the "participating journals" tab)

- See the Standart Operating Procedure for when you come across a situation you haven't mentioned in your preregistration.

Doing reproducible and ethical science

- The Guide for Reproducible Research, an open source guide on creating reproducible, ethical and collaborative data science.
- The PhD Toolkit on Transparent, Open, and Reproducible Research by Open Science Framework.
- This MOOC by Berkeley Initiative for Transparency in Social Sciences.
- This course on improving credibility in social science research by Policy Design and Evaluation Lab.

Statistics

- Improving your statistical inferences Coursera course by Daniel Lakens
- See UCLA's guide to using G*Power and more resources here.
- Read here how to increase your power if your resources are limited.

Data analysis

- List of Computational and Data Analysis resources by Maximilian Kasy
- Data visualisation using R, for researchers who don't use R to increase reproducibility and transparency.

Writing skills

General advice for writing research papers

- [The Writing Workshop: Write More, Write Better, Be Happier in Academia](#) is a free book aimed at early-career researchers.
- [This document](#) also contains many useful links and tips on honing writing and communication skills.
- [Scientific Writing Coursera course](#) by Kristin Sainani
- [Tips for Writing Technical Papers](#), a CS-oriented guide to writing a research paper

Advice on writing a literature review

- [Writing a literature review](#) (economics)
- [Yale Library Guide to Literature Reviews](#) (political science)
- [Literature review for academic outsiders](#) (LessWrong) explains the value of doing literature reviews and links to many other resources

Tools to help with the research process

Improving your workflow

- [Elicit](#) is a GPT-3 powered research assistant that helps with various tasks, including classifying datasets and finding researchers similar to a list you started with, which may be helpful if you're looking for a supervisor. Students automatically receive access as part of our coaching process.
- [SMMRY](#) automatically summarises text to save you time.
- [The Brain](#) allows you to organise ideas in non-linear mind maps. We think it's the best mind-map tool and may be particularly useful during creative research phases and when working in open/new research fields.

- RoamResearch and Obsidian are note-taking tools which present networks of connected notes in graph form.
- Notion and Workflowy are project management and note-taking apps. The Notion personal plan is free with an academic email address.

Finding existing data

General

- Recommended data repositories by Nature and Google Dataset Search

Development economics

- List of data repositories by Markus Eberhardt

Social sciences

- Longitudinal Internet Studies for the Social sciences data archive (Netherlands); Data.World catalogue(mainly US), Pew Research Center (mainly US)

Statistical data

- Gov.uk database (mainly from the UK)

Literature reviews

- Elicit allows you to enter a question and receive answers from research papers.
- Connected Papers creates a visual overview of your field of study, showing papers that are similar to the paper you started with.

- Semantic Scholar is a literature search tool that provides one-sentence summaries of papers and shows papers that influenced or were influenced by the paper you are reading.
- Scite shows the contexts in which a scientific article has been cited and whether the citations were accompanied by supporting or contrasting evidence.
- LitMaps creates visual maps of citations between research papers and recommends relevant papers.
- ResearchRabbit helps you search for papers and authors, monitor new literature and visualise research landscapes.

Reference Managers

- Citation Manager Comparison
- Zotero (with online extension)
- Paperpile (integrated with Google docs)
- Mendeley
- EndNote

Running a successful study

Collections of resources

- For psychology and potentially other social sciences, the Compendium of Methods and Stats Resources links to many useful papers, tools and tutorials for the planning and analysing of research studies.

Recruiting Participants

- [Positly](#)
- [Prolific](#)
- [CloudResearch](#): Improved service built on top of MTurk
- [Reviews of various platforms](#) and more rigorous comparison can be found [here](#).

Building a Study

Tools for building online experiments and behaviour change programs:

- [Guided Track](#)
- [Gorilla](#)
- [DeclareDesign](#)
- [Qualtrics](#) (some universities have paid subscriptions for students)

Funding and sharing your research

Finding funding
- See our [funding database](#) for PhD funding related to our recommended research directions (some of these opportunities may also be relevant to undergraduate and masters students).
- Sign up to our [opportunities newsletter](#) to hear about funding opportunities related to your research interests.
- Many universities have their own university- or faculty/school-based mini-grants programs to support students with particularly promising research or extra-curricular plans (e.g. exceptional research proposals for their undergraduate, masters or PhD thesis or plans to attend conferences or research-based events to support their research). Try

googling something like "special research grants [name of your university]" to find whether yours offers this.

- The 2021 scholarship guide outlines scholarships available in various universities across multiple countries for undergraduate, masters and PhD students.

- This site features Effective Altruism funding opportunities for a number of different cause areas and disciplines and see this post for additional opportunities.

Publishing

Where to publish your paper (both sites provide recommendations based on your abstract):

- Journal Guide
- JANE
- Listing of undergraduate research journals

See our advice on sharing your finished thesis or dissertation for more ideas.

Presenting your research

- How to Envision, Design, and Deliver Engaging Research Presentations
- Presentation Skills Toolbox from CERI (stem oriented)

See our advice on sharing your research findings beyond academia for more ideas on sharing your research with potential stakeholders.

Awards

International, all disciplines

- Effective Thesis Exceptional Research Award
- The Global Undergraduate Awards

International, discipline-specific

- Undergraduate Thesis Prize in Global Priorities Research (Undergraduate; Philosophy and Economics)
- VCLA International Student Awards (Master and Bachelor; Logic, Computer Science, Mathematics, Philosophy)
- Student International Research Award (Bachelor and Master; Psychology)
- Michael Nicholson Thesis Price (PhD; International Studies)
- Award for Outstanding Doctoral Thesis Research in Biological Physics: (PhD; Experimental, Computational, Engineering, or Theoretical Biological Physics)
- Helmholtz Doctoral Prize (PhD; Energy, Earth and Environment, Health, Aeronautics Space and Transport, Matter, Key Technologies)
- The Joshua Cefalu Prize (Neurobiology)

Germany

- German Thesis Award (PhD, all fields)

UK

- RAS Thesis Prizes (PhD): Michael Penston Prize for the best thesis in astronomy and astrophysics, the Keith Runcorn Prize for the best thesis in geophysics and planetary science, and the Patricia Tomkins Prize for the best thesis in instrumentation science for astronomy and geophysics

- [BERA Doctoral Thesis Award](#) (PhD; Education)
- [UK Data Service Dissertation Award](#) (Undergraduate; Social Sciences)
- [The BIHG Thesis Prize](#) (PhD; International History)
- [The Sullivan Doctoral Thesis Price](#) (PhD; Computer or Natural Vision)

Your own department/university likely run their own thesis awards. Consider applying – it is usually a good way to show that your thesis is exceptional.

Next steps

Internships and other opportunities

If you want to find out about research-related opportunities relevant (particularly those relevant to the [research directions](#) we recommend), consider:

- Signing up to our [Opportunities newsletter](#), which features opportunities particularly suited to students interested in research careers and early-career researchers.
- Exploring our [research direction profiles](#) for featured opportunities and signing up for the newsletters we list in the profiles. up for the newsletters we include in our profiles.
- Exploring the newsletters [linked in this post](#).

Some further potential sources of opportunities are:

- [Effective Altruism Job Postings](#) facebook group

- [80.000 Hours job board](#) filtered by research roles
- [This list](#) of EA-aligned research training programmes
- Tom Wein's Socially Impactful [Job Listings](#)

Careers Advice

If you're interested in a long-term research career, some resources that might help are:

- Our advice on [testing your fit for a research career](#) and [different research paths](#) you could follow (after undergrad and masters, but also relevant to PhD graduates).
- Our [research direction profiles](#), which often link to advice for early career researchers working on those research directions.
- 80000 Hours' [Advice for Undergraduates](#)
- [Common Points of Advice for Students and Early-Career Professionals Interested in Global Catastrophic Risk](#)
- [Finding a research job in psychology](#) (for undergraduates and recent graduates)