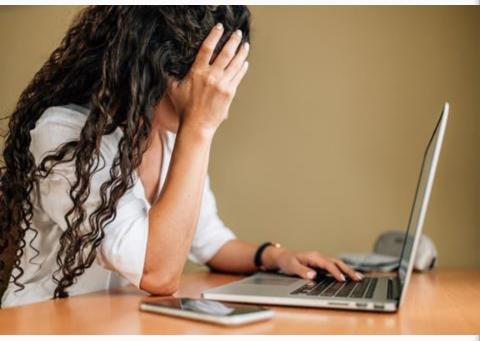
# What the neglected 'how to's' of research have to do with ethics and integrity

There are a broad range of issues that **should** be covered in research training.....but aren't





# I don't know how to...

"....select a research topic"

".... be more productive"

"....remain motivated when my manuscript is rejected, or respond to reviewer feedback"

"....advocate for myself in research meetings"

"....network"

"....collect data"

"....manage my time"

"....agree authorship"

"....obtain ethics approval"

"....communicate with colleagues"

"....avoid plagiarism"

"I'm the first in my family to go to university and in my final year of my PhD. My supervisor has been absent throughout my analysis and writing up. The doctoral programme has some online materials on writing that I've used but it does not feel adequate.

I'm due to submit my thesis soon but worry major problems will only be revealed in the viva. I asked my supervisor what standard a thesis needs to be to pass but they say this cannot be determined until the viva. How can I prepare more effectively?"





Nature's 2022 global survey of graduate students finds that some scholars in PhD and master's programmes are losing faith in their chosen career path as they face financial hardships, multiple demands on their time and uncertain career prospects.



NATURE.COM

Stress and uncertainty drag down graduate students' satisfaction Nature Careers How many complex skills are expected to be undertaken by scholars of all levels of experience working in an unsupported and pressurised environment?

# Who's disadvantaged when we leave out the how-to's? Students and staff that are

- Low income
- Estranged
- From an ethnic minority
- Disabled or have learning difficulties
- Physically or mentally ill
- Parents or carers
- Self-funding
- Part-time

- LGBTQ+
- On placement or doing fieldwork
- International
- Older/mature
- Working or studying remotely
- Women
- First-gen

### Image from UKRIO

(Based on The Concordat to Support Research Integrity, 2019)

#### Honesty

#### In all aspects of research, including:

**Research Integrity** 

- Planning
- · Methods
- · Data collection
- Credit
- Reporting
- Interpretation

#### Transparency

#### Promoting trust and confidence, including by:

- · Reporting full methods
- · Publishing all results
- Sharing data, code and materials
- Declaring conflicts of interest

#### Rigour

#### In line with disciplinary norms, including in:

- Appropriate methods
- Following protocols
- Interpreting data
- Drawing conclusions
- · Disseminating results

#### Respect

#### For everyone and everything involved in research,

including:

- Colleagues
- Other researchers
- Participants
- Animals
- · The environment

#### Accountability

#### Of everyone involved in research, including:

- Researchers
- Institutions
- · Funding bodies
- Publishers

#### Have you ever been formally taught how to....

Email a colleague or participant (and manage replies)	Create a recruitment strategy (including refusals)	Design an inclusive, accessible, engaging and accurate research invitation or advert
Manage projects from start to end (including obtaining funding)	Apply theory to practice (and vice versa)	Give and receive feedback (including being a peer reviewer)
Effectively address emotional and physical safety for students and staff		Plan, pilot, revise and retry research, teaching and pastoral care
Enter, clean, maintain and store data	Work with on and offline communities and stakeholders	Use debriefing techniques through the lifespan of a project
Effectively use social media and other dissemination options (beyond a peer reviewed paper or report)	Understand what impact and sustainability mean - and how to critically engage with these ideas	Make research inviting, relevant and welcoming to all participants and related parties

# And have you been taught any of these things in a way that ....

- ensures all aspects of your work are inclusive and accessible to participants, staff, students and other colleagues/communities
- proactively avoids inequalities, precarity and other inbuilt harms (e.g. bullying)
- prioritises diversity of needs and requirements, respect and dignity; while challenging unfair, outdated, unequal and unethical systems
- informs how to give pastoral support and signpost to appropriate sources of care (a single helpline number doesn't count)
- doesn't expect 'something for nothing' or working 'for exposure or experience' (as in, have you fully costed and budgeted your work)

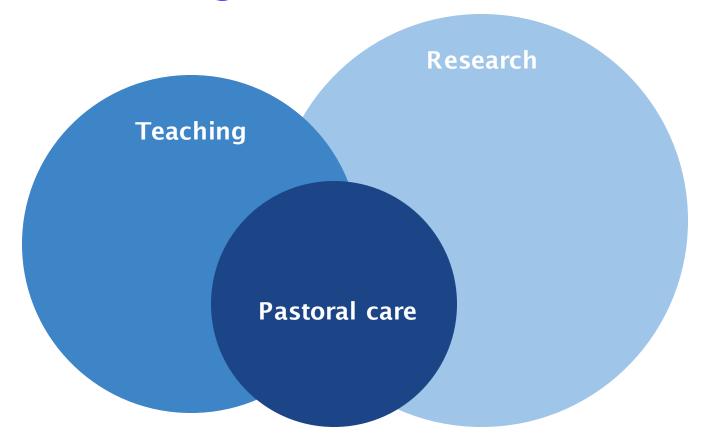
### Ways to fix this





- Time
- Money
- Accessible instructions and guidelines (aka 'what to expect')
- Places and spaces to work and study
- Training and supervision
- Support and encouragement
- Reflection and feedback
- Opportunities for practice and making mistakes
- Spaces to ask for help with help given
  - Strategies when things (inevitably) go wrong
- Managing expectations
- A focus beyond the university/STEM

### What else might we do?



- Address poor or inconsistent delivery of research tuition and supervision
- Rethink how research methods are taught across all sectors
- Focus on 'real world' research skills (e.g. sourcing, synthesising and sharing)
- Use responsive, exciting, creative approaches, featuring dilemmas/case studies
- Ensure welfare, rights, dignity, respect and wellbeing are central
- Check that EDI is more than just a tick box activity
- Hold research institutions more accountable for policies, practices and promises
- Focus on proactive not reactive approaches (particularly on harassment, bullying, safety, whole-campus practices and research culture)
- Target specific problems (e.g. misuse of online surveys)

In order to prioritise ethics and integrity....

....we urgently need a greater awareness of joinedup and whole-organisation approaches; accessible and inclusive practices; that prioritise safety and wellbeing within research methods teaching and practice....



### the how

to's

# Thanks for listening!

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