

Brief overview of the research process

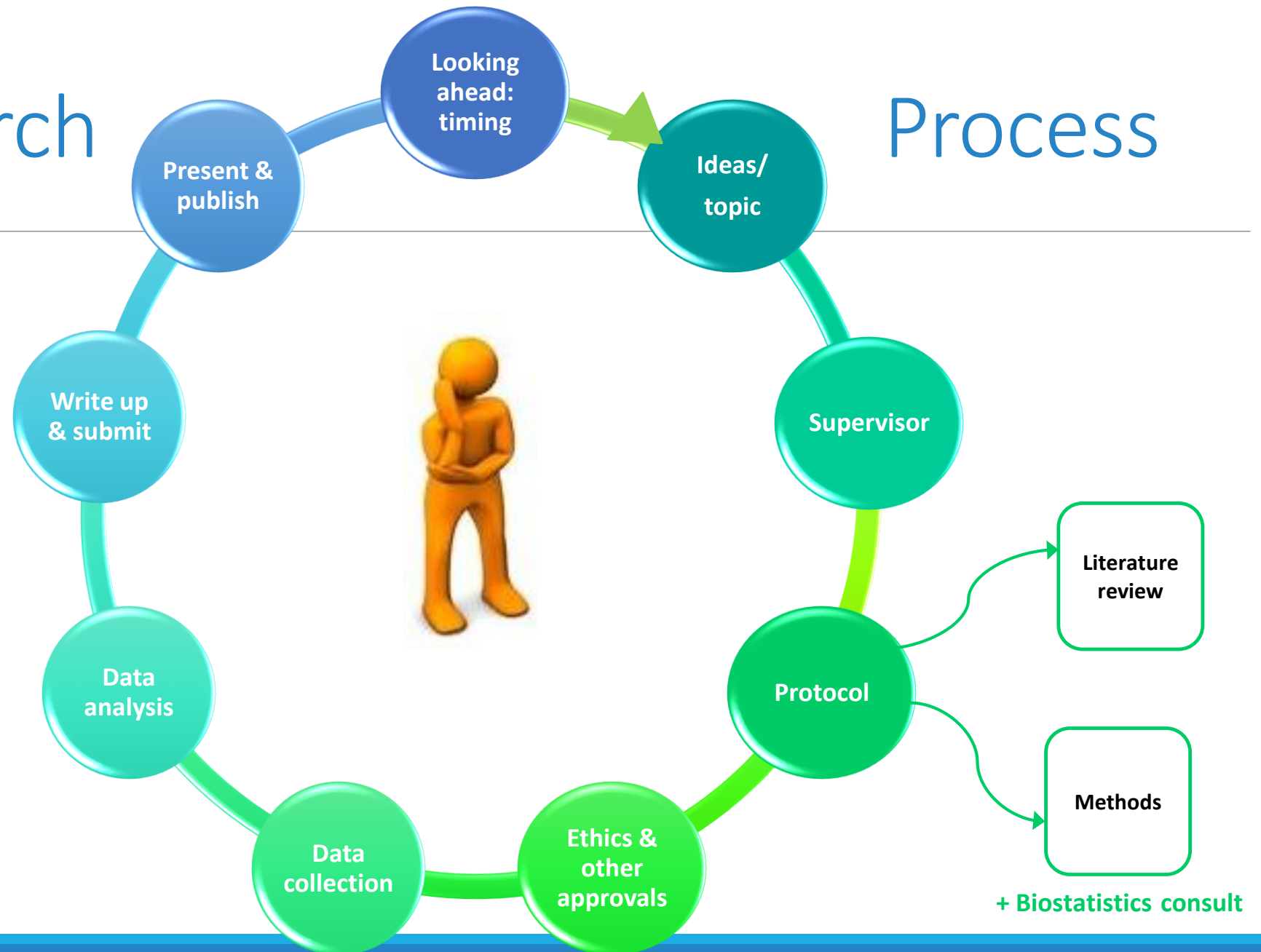
DEBBIE MARAIS

UNDERGRADUATE RESEARCH OFFICE

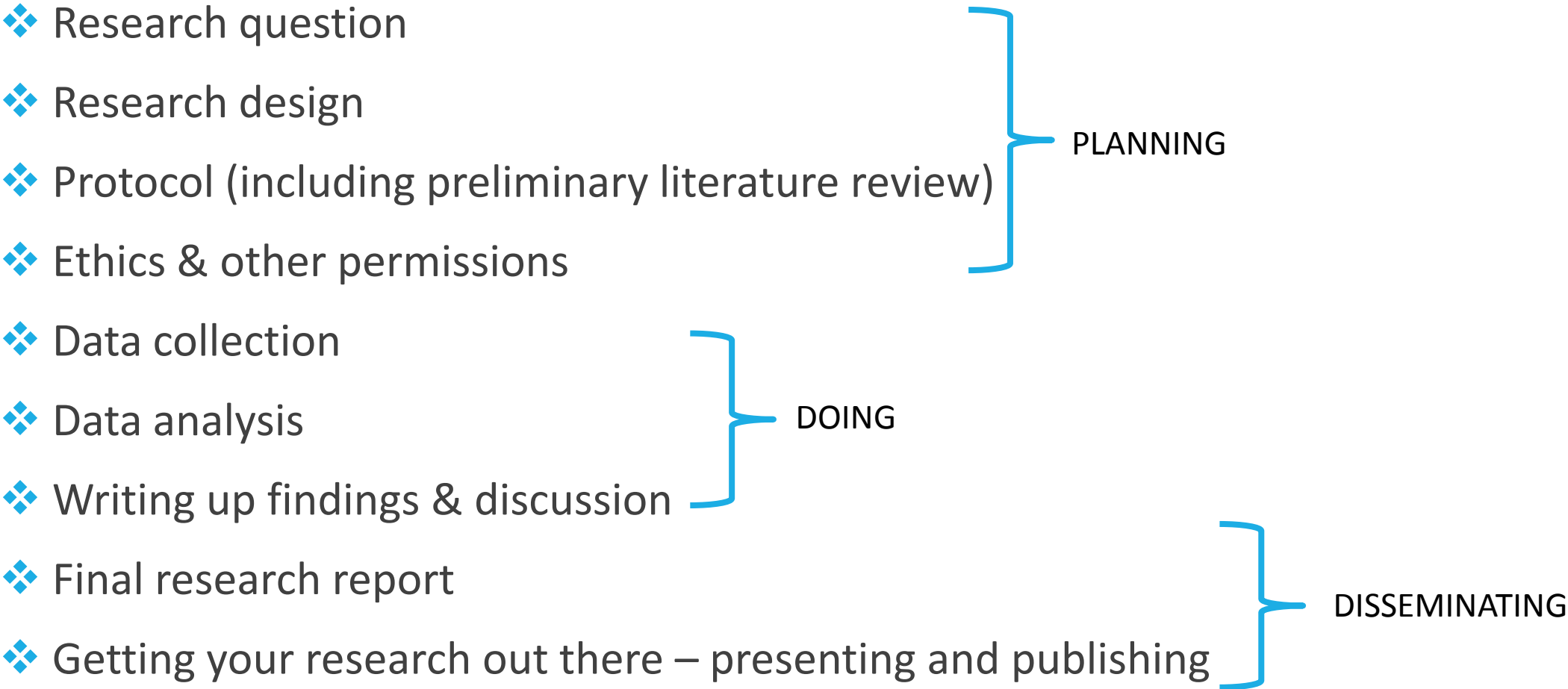
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Research

Process



Lifecycle of a research project



Timeline & timing

❖ TIMELINE

- ❖ Dependent on the type of study you do
 - ❖ **primary** (collect primary data) versus **secondary** (use existing data)
 - ❖ **quantitative** (typically longer data collection, shorter data analysis) versus **qualitative** (typically shorter data collection, longer data analysis)

❖ TIMING

- ❖ When you fit it in depends on how and when you know you work best
 - ❖ short intense bursts
 - ❖ consistent
- ❖ Also depends on what phase you're in: data collection might be intense week-long period; literature review is regular chipping away
- ❖ In general, a good idea to try and keep in regular touch with it: morning? evening?
- ❖ Make good use of 'quieter' blocks, electives and vac times, versus when you know you are likely to have less energy and time



- Month 1:** Consider your research idea
Review the literature
Approach a supervisor
-
- Month 2:** Develop your research question
Consult with a biostatistician
Write your research protocol
- Month 3:** Submit your research protocol to Undergraduate Research Ethics Committee (UREC)
Develop your data collection tools
- Month 4:** Get feedback from UREC
Respond to UREC feedback
Apply for other permissions
- Months 5-8:** Collect your data
- Month 9:** Clean & analyse your data set
- Month 10:** Write up first draft of thesis (including literature review & discussion) & submit to supervisor
- Month 11:** Respond to supervisor's feedback and complete write up of final draft
- Month 12:** Submit



Research Development and Support

About the Undergraduate Research Office

The primary purpose of the Undergraduate Research Office is to support all undergraduate students in the Faculty of Medicine and Health Sciences who undertake research, either as a compulsory or an elective component of their degrees. The Undergraduate Research Office aims to be a one-stop shop of services and resources for undergraduate students as they navigate through the research process.


At the Undergraduate Research Office, our goal is to equip students to become good researchers. From developing a protocol to applying for ethics and securing funding for your research, you will find all the information and support you need at the Undergraduate Research Office. And because we want you to become famous, we also provide resources to encourage you to present and publish the findings of your research.

The mission of the Undergraduate Research Office is to increase undergraduate research outputs through 1) coordinated **research capacity** building and support; 2) facilitation of **ethics review** of undergraduate applications; and 3) making **funding** available for research-related costs, as well as for opportunities to publish papers and present findings at conferences. This office also liaises with Faculty staff and management and with student leadership bodies to ensure that research-related policies, activities and resources are aligned with curricula requirements and with student needs.

- Undergraduate Research HOME
- Contact Us
-
- Useful Links



RESEARCH CAPACITY

- Research Resources
- Find a Research Project
- Past Student Research 
- Videos: Students' Experiences
- Student Annual Academic Day
- Undergraduate Research Committee
- Q Tygerberg Undergraduate Research Society
- Frequently Asked Questions

Research Capacity	Funding	Ethics Review
We are all doing a form of research in our daily lives when we look at things and question how or why they came to be. Conducting a research study requires us to develop a specific set of skills, from formulating a research question to developing a protocol, from collecting and analysing data to writing	From printing questionnaires to developing new drugs, there are costs involved in doing research. Funding for research at university level has typically been targeted at staff and postgraduate students. The Undergraduate Research Office is committed to identifying and providing funding for undergraduate	The first step in doing ethical research is applying for ethics approval from the Undergraduate Research Ethics Committee (UREC). The Undergraduate Research Office assists students to navigate this process, by providing informational materials and one-on-one consultations. Guidance and support is

Ideas:

So what kinds of research can you do?

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Examples of past student research topics:


- ❖ Post exposure protocol: An intervention to improve knowledge and practice among medical students at Tygerberg Hospital
- ❖ Testicular cancer in Tygerberg Hospital 2000-2015: A descriptive retrospective study
- ❖ Overdose associated with mental illness: Analysis of Tygerberg Hospital patients over a 2 year period
- ❖ Intimate knowledge of a disease: experiences of medical students who develop TB
- ❖ A qualitative exploration of traditional and cultural beliefs influencing exclusive breastfeeding in rural Transkei
- ❖ Quality of care for patients with non-communicable diseases in the Dedza District, Malawi



Writing the protocol: purpose

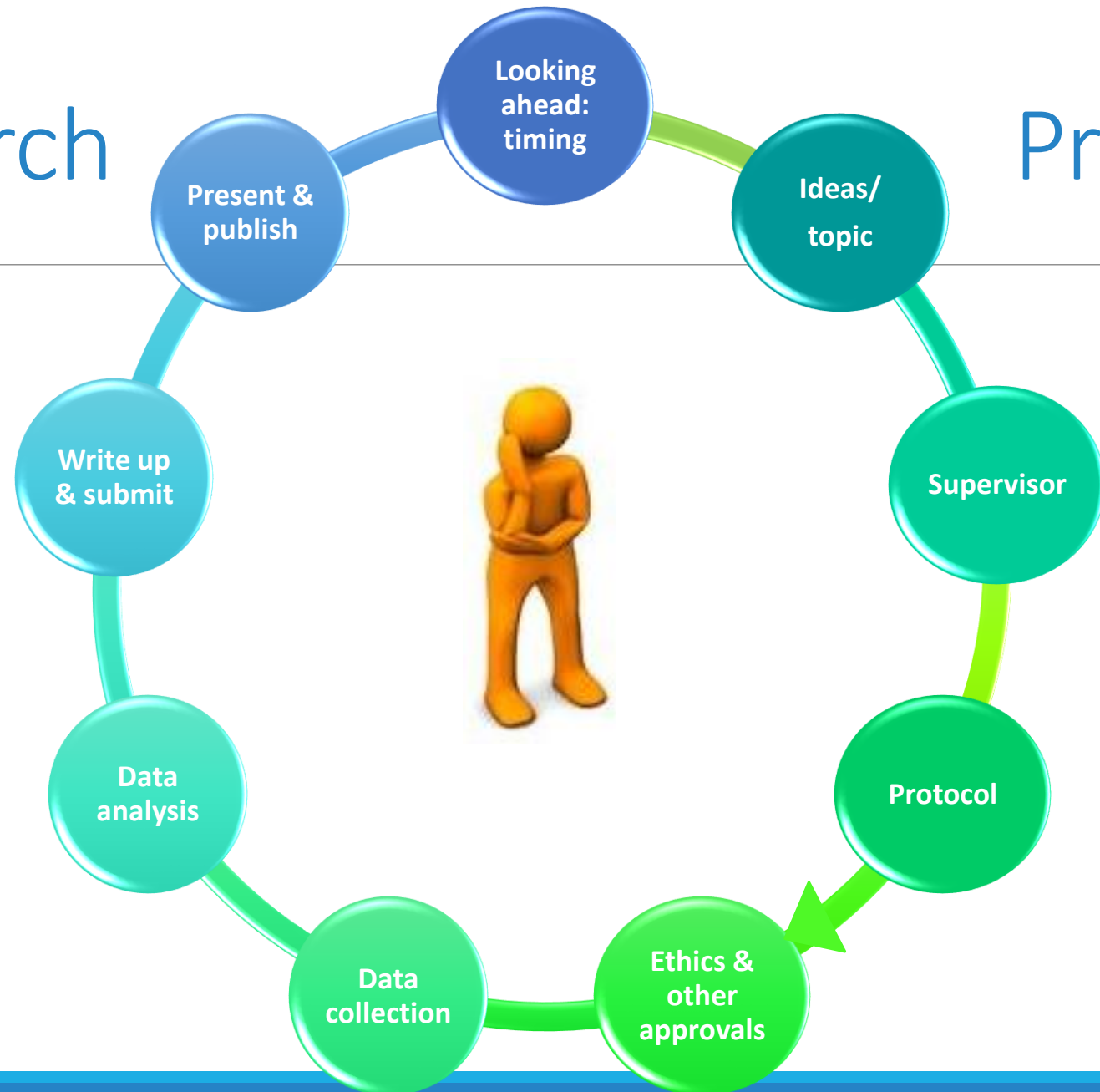
- ❖ A research protocol / proposal outlines all aspects of the research project: your blueprint
- ❖ First step in convincing others of the importance and feasibility of the research study
- ❖ Two purposes:
 1. Guide for researcher: must be concrete and practical
 2. Communicate research plan to others: usually evaluated in some way

Writing the protocol: structure

1. Introduction
 2. Literature Review / Background
 3. Rationale for Study
 4. Research Question, Aims & Objectives
 5. Methodology
 6. Ethical Considerations
 7. Timeline
 8. Budget / Costs
 9. Anticipated Problems / Limitations
 10. References
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