

Ten simple rules: writing a (great great) MSc thesis at BiRC

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Introduction

This is intended as a quick guide; very much inspired by the famous 10 rules series of PLoS Computational Biology. You can also read **Ten simple rules for graduate students** written by Gu & Bourne a good 12 years ago ...

We still think it is a good read!

10 Simple rules

Well, ... "The Code is more what you call guidelines, than actual rules" ...

 The Pirates Code is here

Rule 1: Find a good match: project and supervisor(s)

- Use your PIB experience, ask other.
- There are no good/ bad supervisors but there can be good/bad match.
- Find a thesis topic that matches your interest so you can have some drive for the next 4-5 months

Rule 2: Sketch the project and the contract

Is it going to be a Theory/ Data Analysis /New method project ??

- Be (crystal) clear about that
- Are the essential building blocks (eg data) available ?
- Is this a project you can write clearly about ? (2 paragraphs)
- If not ... think again ...

Cluster or no cluster ?

- Do you need the use of the cluster for your project ?
- Pros and Cons
- If you do not have much previous experience, time to get started ASAP

Rule 3: Get started early

Nobody counts when you started your thesis but everything stops by end of May

So :

- Start early ..
- Read / write for yourself
- Ask Qs

Rule 4: Ask for help.. earlier than later

- Google it
- Ask Your fellow students, BiRC PhDs and post docs
- and your supervisor(s) off course

Rule 5: Summarize your work regularly

- Start to write early
- Writing about stuff --> check how much you digested / understood
- Work as reproducibly as you can ... for your own sake

Rule 6: Monitor your own progress together

- Use your supervisor for regular meeting but
- More importantly use yourself and your fellow students.
- The more you present to each other formally / informally, the more you can see clearly where you are going ..

Where to go next ...?

- Remember the mantra : "Remain Focused on Your Hypothesis While Avoiding Being Held Back" (aka Rule 6 of Gu & Bourne)

Rule 7: Captivate your audience ;-)

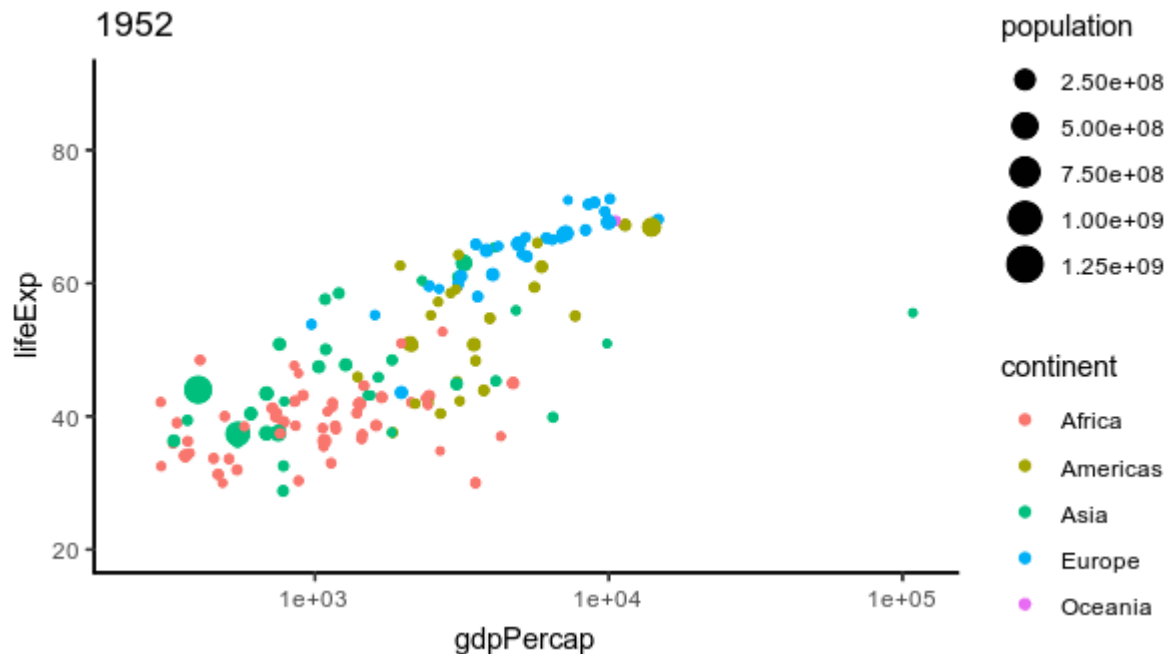
- Prove your scientific independence !
- Write for a specific audience (aka the *Censor*)
- Do not worry so much about size (of the thesis)
- Worry more about how you write: you are explaining your work to someone that is proficient in bioinf but a complete stranger to your own thesis question ...

In a nutshell

- Explain the context,
- The state of the art and
- "what is missing" (this is where you pitch in with your thesis project).

Rule 8: Make nice figures and tables

Presenting **Clearly** is the key to many things both for your thesis, your bright future in academia / industry.



Rule 9: Have fun

Do we need to elaborate :0) ?

Rule 10: think ahead ... life after the thesis

