

Scientific Writing, Integrity and Ethics IV

Thesis Writing and Review Response

Guoqiang Li School of Software



Reference



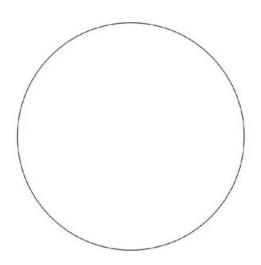
Kim Kastens, Stephanie Pfirman, Martin Stute, Bill Hahn, Dallas Abbott, and Chris Scholz. How to Write Your Thesis. https://www.ldeo.columbia.edu/~martins/sen_sem/thesis_org.html

Stefan Rüger. How to write a good PhD thesis and survive the viva. http://people.kmi.open.ac.uk/stefan/thesis-writing.pdf

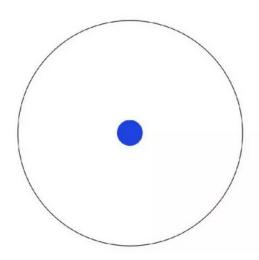
Calcagno V, Demoinet E, Gollner K, Guidi L, Ruths D, de Mazancourt C. Flows of research manuscripts among scientific journals reveal hidden submission patterns. Science. Vol. 338(6110), 1065–1069, 2012

What is a PhD./Master

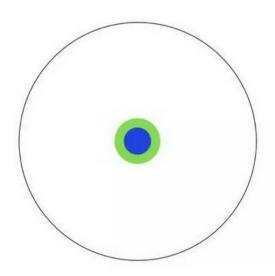




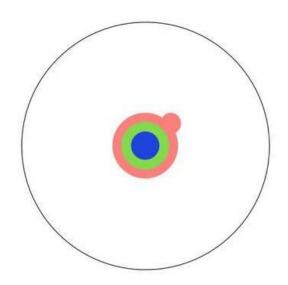




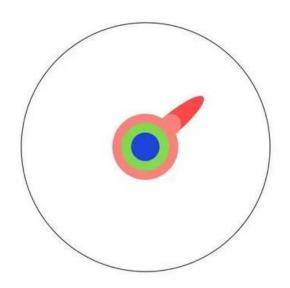




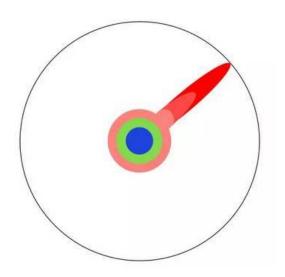




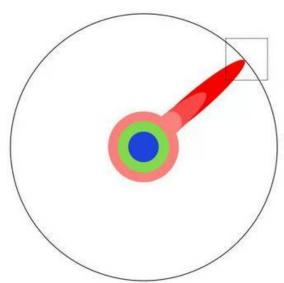




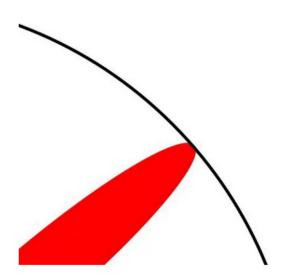




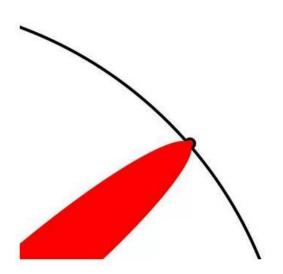




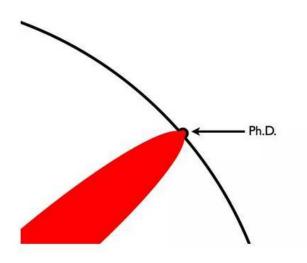




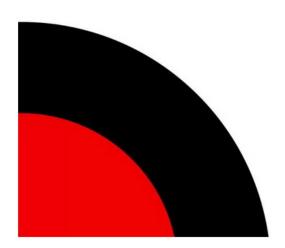




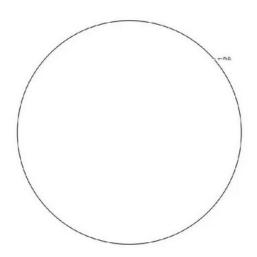














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having defended the thesis.

Preparing A Thesis



a critical analysis,



a critical analysis, to answer a scientific question or hypothesis.



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to gather evidence to make interpretations and judgments.



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clearly written and in the format.

Planning Ahead for Your Thesis



Start the thesis research earlier to work on background, necessary knowledge, etc.

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The best strategy is to pick a project that you are interested in, but also that a faculty member or other professional is working on.

Finding Audiences



in analogous field areas elsewhere in the world.



in analogous field areas elsewhere in the world.

in your field area, but with different techniques.



in analogous field areas elsewhere in the world.

in your field area, but with different techniques.

on the same interval of geologic time elsewhere in the world.



in analogous field areas elsewhere in the world.

in your field area, but with different techniques.

on the same interval of geologic time elsewhere in the world.

all other researchers using the same technique you have used.



if your study encompasses an active process, researchers working on the same process in the ancient record.



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if your study is based on the rock record, people studying modern analogs.

Writing for an Audience



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potential reviewers of your manuscript or your thesis committee.



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The text fills out the details for the more interested reader.

Structure of a Thesis

All the opinions in this section is only for Computer Sciences and Software Engineering!

Structure



Title

Abstract

Chapter 1. Introduction

- background
- related work both domestic and international
- the contribution
- thesis origination

Chapter 2. Related Techniques

Chapter 3. Main Body I.

Chapter 4. Main Body II.

Chapter 5. Main Body III.

Chapter 6. Conclusion and Future Work



Consistent and coherent narrative



Consistent and coherent narrative

Select publishable material



Consistent and coherent narrative

Select publishable material

Make headlines informative



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Avoid isolated subsections



Title: Do not to overclaim or undersell.



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- spells out the problem area,
- motivates its study,
- makes the research hypothesis explicit, details the contributions of the thesis, and
- contains an explicit walk through the thesis structure.



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- contains an explicit walk through the thesis structure.

Signposting on each chapter:

- a small signposting exercise at the beginning of each chapter, and
- a chapter conclusion at the end of each chapter.



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Figures should be oriented vertically, in portrait mode, wherever possible.



Is the figure self-explanatory?



Is the figure self-explanatory?

Are your axes labeled and are the units indicated?



Is the figure self-explanatory?

Are your axes labeled and are the units indicated?

Show the uncertainty in your data with error bars.



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Are your axes labeled and are the units indicated?

Show the uncertainty in your data with error bars.

If the data are fit by a curve, indicate the goodness of fit.



Could chart junk be eliminated?



Could chart junk be eliminated?

Could non-data ink be eliminated?



Could chart junk be eliminated?

Could non-data ink be eliminated?

Could redundant data ink be eliminated?



Could chart junk be eliminated?

Could non-data ink be eliminated?

Could redundant data ink be eliminated?

Could data density be increased by eliminating non-data bearing space?



Is this a sparse data set that could better be expressed as a table?



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Does the figure distort the data in any way?



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Does the figure distort the data in any way?

Are the data presented in context?



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Does the figure distort the data in any way?

Are the data presented in context?

Does the figure caption guide the reader's eye to the "take-home lesson" of the figure?

Order of Writing

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Thesis is not written in the same order as it is presented in.



• organize your paper as a logical argument before you begin writing.



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- 4 outline the main elements: sections, and subsections
- begin writing, choosing options in the following hierarchy: paragraphs, sentences, and words.



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- Once your plots and tables are complete, write the results section.



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- Once you have written the results section, you can move on to the discussion section.



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- Once you have written the results section, you can move on to the discussion section.
- Write the abstract last.

Response to Reviewers, Ten Suggestions

0. Identify Types of Reviewers



First of all, there are several types of reviewers, try to identify them...



First of all, there are several types of reviewers, try to identify them...

serious,



First of all, there are several types of reviewers, try to identify them...

serious, wise,



First of all, there are several types of reviewers, try to identify them...

serious, wise, stuffy,



First of all, there are several types of reviewers, try to identify them...

serious, wise, stuffy, cunning,



First of all, there are several types of reviewers, try to identify them...

serious, wise, stuffy, cunning, unwise,



First of all, there are several types of reviewers, try to identify them...

serious, wise, stuffy, cunning, unwise, vicious...

1. Provide an Overview



Begin with a summary of changes, pointing out new data and new analyses performed in response to the most essential criticisms.



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The response letter should contain the complete set of reviews with your responses interleaved.

2. Be Polite and Respectful of All Reviewers



Keep in mind that if the reviewer failed to understand something, at least in part, with you for not making the point clear enough.



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Reviewers Are Always Right



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You need to work to understand a particular critique.

If you believe that the reviewer is a competitor, communicate your concerns to the editors.

3. Accept the Blame

Be Humble



If the reviewer failed to understand something, apologize for not making it clear.

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Even if you are convinced that the text is already clear, revise the text and quote the revised text in your response.

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Even if you are convinced that the text is already clear, revise the text and quote the revised text in your response.

Even if the requested change seems unnecessary, go ahead and revise with the goal of showing the reviewer that they were listened and understood.

4. Make the Response Self-Contained



When make changes to the text or to figures, quote the changes directly in the response.



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Refer to the specific line number where the changes were applied.



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By making the response self-contained, reduce the likelihood that the reviewer will read the full manuscript and find new things to complain about.

The only exception is when a large chunk of modified text is too long to quote. Such changes can simply be alluded to explicitly in the response.

5. Respond to Every Point

Consideration



Even though the reviewer may disagree with the response, Do not try to avoid a difficult point by simply ignoring it.

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Even though the reviewer may disagree with the response, Do not try to avoid a difficult point by simply ignoring it.

If the reviewer may raise 2 separate issues within 1 bullet, be sure to respond explicitly to both critiques.

6. Use Typography to Navigate

Typography



Use changes of typeface, color, and indenting to discriminate between three different elements:

- the review itself,
- the responses to the review, and
- the changes that have made to the manuscript.

It can be explained in the introduction to response.

7. Begin Response with a Direct Answer



You can provide background information, but you should do so after giving your primary response.



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Provide a "yes" or "no" answer whenever possible.



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The goal is to show the reviewer that you took their comments seriously, and you should quickly convey what you did in response to their critique.



Avoid giving the impression that you do not want to carry out the additional experiments or analyses that the reviewer asks for.



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If reviewers ask for too much, it is acceptable to say that the requests go beyond what you perceive to be the scope of the current work. However...

9. Be Clear About the Changes

Changes Should be Emphasized



It is difficult to convey to the reviewer exactly what that change consisted of.

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Refer explicitly to the previous and revised versions of your manuscript and explain what changes have been made.

10. Write the Response Twice

The Initial/Venting Draft



Aim to analyze what the reviewer meant while considering different avenues of response and the cost-benefit tradeoff of performing additional experiments.

The Initial/Venting Draft



Aim to analyze what the reviewer meant while considering different avenues of response and the cost–benefit tradeoff of performing additional experiments.

Help to decide how to formulate a final response document.

The Initial/Venting Draft



Aim to analyze what the reviewer meant while considering different avenues of response and the cost–benefit tradeoff of performing additional experiments.

Help to decide how to formulate a final response document.

Vent your frustration with what you perceive to be unfair or rude reviews.

The Letter to the Editor



One can write a separate letter to the managing editor.

The Letter to the Editor



One can write a separate letter to the managing editor.

Address issues about potential conflicts of interest.

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One can write a separate letter to the managing editor.

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Point out when the reviewers' requests conflict with one another or with journal policies.

Summary



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The manuscript that comes out of the review process is improved relative to the original version.