Writing review

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Most scientists regarded the new streamlined peer-review process as "quite an improvement."
Reasons

Why should I give my work for review and write review myself?
Reasons

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Reasons

• Relevant comments will help you to improve your work
• You can not find all typos/errors in the text yourself
• Other people may get a lot of new ideas when reading your work

If your course mate cannot understand your work, no one will
Goals

What to focus on during review?

• Does work have a clear goal?
• Is work logically structured?
• Is reader required to have too much prior knowledge?
• Are the results of the work clearly presented?
• Is mathematical argumentation presented clearly and accurately?
• Is work properly formatted?
• Is work grammatically well-written?

TIPS&TRICKS

Fix one question at the time.
There is no point of correcting the spelling if work should be completely restructured.
Find what is good and what is not so good in the work.
Reviewing effectively

Structure review in 2 parts:

• general summary & most important comments

• detailed feedback that you will discuss with the author
Comments

• 1-2 pages long in bullet pointed format

• Place short comments in the right places of google doc, LaTex, pdf (makes it easier to navigate)

• Use proofreaders’ marks (makes it easier to understand you comments by the author)

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>delete</td>
<td>take $x$ out</td>
</tr>
<tr>
<td>close up</td>
<td>print as one word</td>
</tr>
<tr>
<td>delete and close up</td>
<td>close up</td>
</tr>
<tr>
<td>caret</td>
<td>insert here (something)</td>
</tr>
</tbody>
</table>

proofreaders’ marks
http://www.merriam-webster.com/mw/table/proofrea.htm
Reviewers

Who can review my work?

Sister, brother, mother, father

Supervisor or another faculty member

Avoid mixing up reviewing with writing!

Students
Troubleshooting

What to do if I don’t understand anything in the work I’m reviewing?

WHUT?

I DON’T UNDERSTAND THIS...
Troubleshooting

I don’t understand because:

• Author has used the mystical X, Y and Z terms/results. Continue reading the work on the assumption that the results are valid.

• It uses the crypto signs. Try to decode them and just mark the rest.

• The text is so boring that my eyes are closing while reading. Check only work logical structure.
Aim of the work

Is the aim of the work stated clearly?

TIPS&TRICKS
After reading the work you should be able to write a 5-7 sentence summary of work goals. If you can not do that, then the purpose or work is not clearly stated.

Whether the objectives were achieved or not:

• Whether the objectives are reasonable and realistic?
• Whether the objectives were achievable?
• Does the work show that the objectives are unachievable?
• If yes, does the work provide an answer to why these goals are unachievable?
Structure of the work

How to control that the work is logically structured?

• Is it clear from the beginning, why would anyone read this work?
• Does the work set specific aim to be achieved?
• Are major concepts well defined?
• Is work properly structured? How easy is it to find a specific outcome or concept?
• Are sub-section headings informative?
• Are there any significantly larger (unbalanced) sections?
• Are results/concepts presented clearly and in the right place?
Level of understanding

Summary paper aims to provide an overview of the problem so that it can be understood by fellow students

• Does reading require significant prior knowledge?
• Do references cover this subject area?
• Are all mathematical proofs clearly stated?
• Are the results adequate?
References

• May be made in order to extend or reinforce the specific argument or
• Provide a historical perspective
• Should be available for the reader

References should be actually read and used by the author (avoid blindly copying from other sources)
You get big bonus points for the following things:

- Being concise - nothing irrelevant
- Being precise - stating the specific problems with the manuscript
- Being constructive - stating how the authors could address the problems you have found
- Being polite - this helps focus on real issues rather than pet peeves
Big No-No

- Writing really long reviews
- Show off how expert you are
- Being overly critical

https://github.com/jtleek/reviews
Help materials

Review guide by Jeff Leek’s group
https://github.com/jtleek/reviews

Review guide by Sven Laur

Summarize a journal article
• http://www.wikihow.com/Summarize-a-Journal-Article
• http://ueberfachliche-kompetenzen.ethz.ch/dopraedi/pdfs/Mayer/guidelines_review_article.pdf
HOW TO

write a summary of an article
How to read scientific publications

Hedi Peterson

Abstract Mad Libs!!

This paper presents a _________ method for _________
(synonym for new) (sciencey verb)
the _________. Using _________, the
(noun few people have heard of) (something you didn’t invent)
__________ was measured to be _____ +/- _____
(property) (number) (number)
__________. Results show _________ agreement with
(units) (sexy adjective)
theoretical predictions and significant improvement over
previous efforts by _________, et al. The work presented
(Loser)
here has profound implications for future studies of
__________ and may one day help solve the problem of
(buzzword)

__________________________________________
(supreme sociological concern)

Keywords: ____________ ____________ ____________
(buzzword) (buzzword) (buzzword)

www.phdcomics.com
How to read scientific publications

Abstract Mad Libs!!

This paper presents a ______ method for ______ (synonym for new) (sciencey verb)
the __________. Using __________, the (noun few people have heard of) (something you didn’t invent)
_______ was measured to be ______ +/- _______ (property) (number) (number)
_______. Results show __________ agreement with (units) (sexy adjective)

abstract and an article summary are two different things

Keywords: _______ _______ _______ (buzzword) (buzzword) (buzzword)
Purpose of writing summary
Purpose of writing summary

• Provide a condensed but separate description of the research

• Help you redigest the information at a later date in the research process

• Teaches to read the article effectively with an eye for summary
SUMMARY

PLAN

SUMMARY
Planning the summary

• Read your notes
• Identify most important parts of the article
• Describe theoretical background & assumptions
• Summarize:
  – Hypotheses
  – Methods
  – Statistical results
• Include an interpretation of the data
• Identify key vocabulary to use in the summary
• Aim to keep it brief:
  – Write several short paragraphs that summarize each separate portion of the journal article
Put it into words
Put it into words

• Start by defining the research question
• Discuss the methodology used by the authors
• Describe the results
• Connect the main ideas presented in the article
• Avoid making your own conclusions
  point of a summary is to summarize the authors' points
• Refrain the citations
• Use present tense
• Revise your draft-edit for completeness and accuracy
Don’t FORGET TO BE AWESOME.
• Be critical
• Put the findings into context
• Be as objective as you can
• Use tables
• Add your own touch and vision
• Share your opinion in the discussion section