Reading Scientific Articles

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Approach 1

Order of reading

Phase 1

survey the paper to see if it is worth the investment of reading. Often papers are found by search based on key words in the abstract.

Stop at any point if it becomes clear that the paper is not useful to you

1. Start with keywords and title
2. Look at conclusions
3. look at tables figures and captions

Phase 2

Start with introduction, contains background and purpose of study. look at results and discussion

Finally, and only if paper is very relevant, then the experimental details will be reviewed.

> NB: find reference manager.

Approach 2

1. Look at title and abstract to see if paper at all relevant.
2. background (not unbiased or systematic),skip?
3. methods (potential research errors) potentially not generalisable.
4. results section (draw own conclusion)
5. discussion (authors opinions)
6. authors conclusions (also on their opinion)

Avoid sections which may have bias. look predominately at objective info.

types of research Paper

1. original research
2. case reports
3. technical notes
4. pictorial essay review

COPY OTHERS

Research Article

Abstract

may be misleading very short 250 words. if unsure rather ditch it.

Introduction

Full aims near the end. cant reference introduction (must reference the original article, cant reference rewiew either (unless originalcontent such as pictures)).

Materials and methods

most technical

results/discussion (may be separate)

present findings in a clear manner. (captions must expalin what was doen, what results are and what they mean in isolation of the text.)

results can have subtitles which follow the materials and methods

Discussion

puts the result into context. explain how results help understanding, and potentially oputline future experiments

References

must be consistent of exactly the same format.

For assignments.

First read abstract, skim the article for keywords of the assignment. take notes/highlight, such as words/phases not understood, and stuff which is relevant.

reread articles for figues tables graphes methods (not really at undergrad) and discussion. think critically (retraction watch, articels retracted on daily basis.).

See how articles fit together, know your pace. Write own abstract in own words.

For a test.

Read the question, then the abstract. then figures.