How to write and publish research paper?

Dr. D.B. Gurung (PhD) dhan@cnr.edu.bt





Main References:

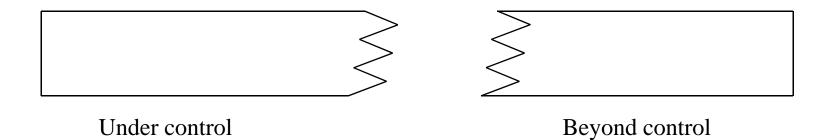
How to Write and Publish a Scientific Paper – by Robert A. Day & B. Gastel, 6th Edition, Cambridge University Press, 2006.

Publication Manual of the APA – by APA, 5th Edition, USA, 2002.



Processes of writing & publishing

- Outside the control of author
- Under the control of author



(This presentation is on process that is under the control of author)



Why is research paper hard to write & publish?

Providing proofs is not easy



Copyright 2003 Randy Glasbergen. www.glasbergen.com

Drawing conclusions requires rigor

No theory or model is complete – gaps exist

Science is uncertain to certain extent

Paper involves 'state-of-the-art research'

Paper is of current academic debates



Why publish?

Make your thoughts, ideas, & opinions public

Share your expertise

Leave it open to discussion & further analysis

Become accepted as an academic, scholar, etc.

Record knowledge



http://greenwichroundup.blogspot.com

(Source in part: Dr. Guillaume & Dr. Andreas – Uni, Basel)



The review process



quality assurance



author researcher



journal editor reviewer

Conducts research Analyses data Produces results Writes WHEN LASENCE, CHESTROME, EXPLOSEDS PER VYOMS ON EXTREMAL PHASE A. V. Super 5. S. Verter San Street Series. Failure par. J. Serverman, 1950 Sante. Control September 2010. On Computer Series.

If the second is the experimental of the companion of the

Because of the divergence of the 1°C expectation, the regarded numerous motionic, using the accurate the behaviour of the Coefficients in long motion, are used. Easility, the sympactic of large number of the 1.15 expectation the Neutrinolded both numerically 1.10 and motivately 1.11. Typically, the coefficients in the extraorder gover as belaviour $E_{\alpha} = \mu_{\alpha} V V V$. Here, was appear of the problem (neutrinol accounted.)

Firstly, the appropriate modification of Paris — these approach procedure is proposed, designed to take the account the processors or and J of the appropriate which not be excluded enough. So, the relative of other field function is approximated properly, for a reside, the procedure constraintly matches to the assumption.

Solvative, the divergence of the LLD expension between stress to considerable, has been been been stress that the principle of a principle of the first the first than the principle of the p

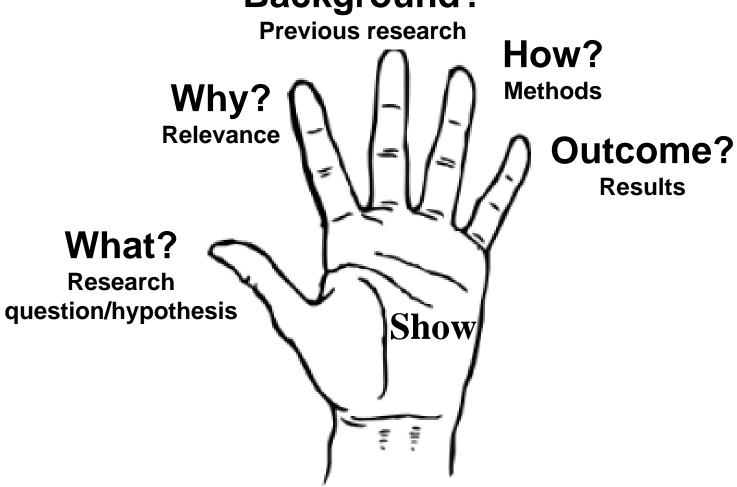
As a typical records, a hydrogen area subject to pertiled statest and coapeans below in increasing or densit. The temperature discussions participative theory offerer one as allocal highly accounts exempts and widdle.

N. Leyer-Calvera, B. Z. Cirolous, D. B. Havelbare, J. B. Moupel, Phys. Rev. Lett. 1972; 1990; J. Chan. Phys. 9, 441; 1970;
 J. S. Pepers, A. F. Kargers, Phys. Lett. A 155, 199 (1992); Paris V 234777 (B. Lewest, W., 18) (1995).

Corrects
Criticises
Demands modifications
Publishes



Background?



Structure & Proportion

Section	Proportion
Abstract	±200 words
1a). Introduction	5 – 10 %
1b). Theory & literature review	20 – 30 %
2. Methods & materials	0 – 15 %
3a). Results	50 % combined
3b). Discussion	
4. Conclusions	5 – 10 %
References	
Appendices	

(Modified from: Dr. Guillaume & Dr. Andreas)

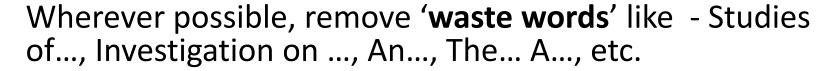


Title: How to Prepare?

Title is a **label**, not a sentence

Describes contents in few words

Most read part of a paper



Care about syntax (faulty order of word)

Identify main issue of paper

Hypothesis and experiment variables are clues to titles

Avoid abbreviations, jargons





What Abstract? Informative!

Abstract is a **miniature version** of a paper

Key elements include *summary* of:

- Introduction (objectives/scopes),
- Materials & methods,
- Results & discussion, and
- Conclusions

Abstract is written **mostly** in **past tense**

Do not refer to **Tables** and **Figures**

Do not cite

Introduction:



Introduce the paper

-State the research problem (contextualize the nature & scope

- why did you chose the subject & why is it important?

- Briefly review literature (previous research)
- State method of investigation/of choice

Hypotheses if any (also theory)

State principal conclusions (no suspense)

Delimit the boundary (define what is done)

Mainly written in present tense

(dealing with current problem & referring to established knowledge)



Materials & methods

Describes procedure

What materials used



- Reproducibility (repeatability)

Mostly written in past tense

This section tolerates certain degree of passive voice



Results

State overall picture of method used (no details please – in as few sentences as possible)

Present your data (representative, important)

(The fool collects facts; the wise man selects them – Powell)

Use past tense



Discussion – so what?



Elements of good discussions:

Present the principles, relationship, & generalization of 'Results'

Point out exceptions

Relate with past research in context (factual relationship)

Discuss the theoretical implications (if need)

Mostly present tense (usually

emphasizes established knowledge)





Conclusions (sometimes clubbed with Discussions)

Summarize your key conclusions with evidences (note that the conclusion is not the same as summary)

Open doors for further research (indicate weaknesses)

Do not whimper away (assert significance/strength of paper)

Like in discussion – mostly present tense

Do not bring out any new idea not reflected in the text



Other issues:

Identify audience, Journal to submit in advance

Submitting paper (follow 'Guide to authors')

Review process (be aware of how to deal

with editors and reviewers)

Copyright issues (be aware)

Publication process (correspondences with editors)



http://paulocoelhoblog.com



Avoid common pitfalls?

English – writing across culture

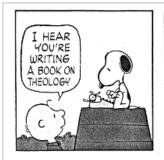
Remove religious biasness

Proofread to avoid copyediting

Read, read, and listen

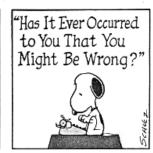
Use **inclusive words**, e.g., people, person instead of man, woman, he, she

Internal peer review, allow colleague(s) to read & comment before submitting to journal (know that you might be wrong)









http://paulocoelhoblog.com



Write BETTER?

Keep it **simple** (one sentence, one idea)

Write mostly in **active voice** (passive voices are confusing, adds **verbosity**)

Be careful about **consistency** (e.g., et al. \neq *et al.*, $10\% \neq 10\%$, $.05 \neq 0.05$, $11.33 \neq 11.3$, $10 \text{ ml} \neq 10 \text{ml}$)

Care about **tenses** between sections

Avoid **jargons** (technical fine), **clichés**, **euphemisms**, **redundancy**, & **phrases**



Write BETTER...

About **numbers** (less than 10 has to be worded; **exceptions** in series & std. measurements; e.g., There were 2 girls, 3 boys, and 11 women; or 1 ml)

Never start a sentence with a number, if unavoidable, write in words, e.g., Eleven boys ran ...

Avoid mismatch between **citations** and **references** (use **Endnote**)

Use standard **Tables** and **Figures** (cf. some papers), also **captions**

Keep threads/links (of ideas, do not jump between)



If the part under the author's control is done well, it is easier for the other part to fit in

Thank ≤ you