9-14-2009

Student Reviewer Training for Western Undergraduate Research Journal: Health and Natural Sciences

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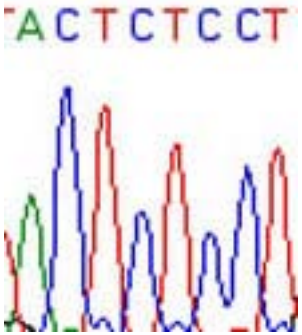
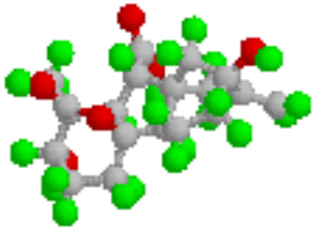
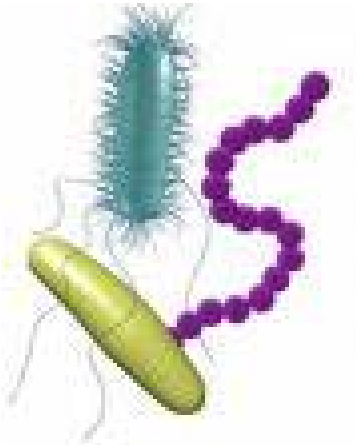
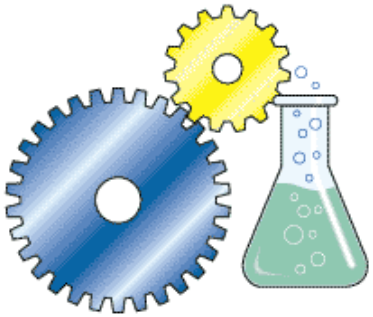
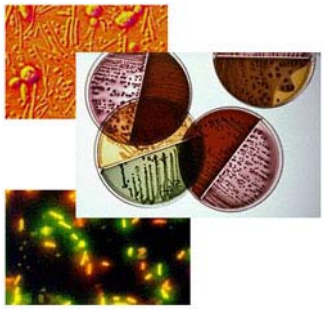






WURJHNS





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Sept. 14, 2009

So you want to be a reviewer? Why?

"No passion in the world is equal to the passion to alter someone else's draft."

~H. G. Wells

Know your publication

Primary Goal of the WURJHNS

To enrich the undergraduate academic experience at the University of Western Ontario (UWO)

The WURJHNS will accomplish this goal by:

Providing students with opportunities to showcase their research accomplishments
Enabling undergraduate students to become intimately involved in the review and publication of manuscripts
Conducting workshops on the academic publication process and open access publication
Conducting workshops on effective scientific writing
Conducting workshops on finding summer research opportunities
Developing new and innovative approaches to involve undergraduate students in scholarly work

Know your limits

- And trust your instincts!
- Honesty
- Quality over quantity
- Report any conflict of interest you may have

Understand the expectations

- Follow instructions
- Familiarize yourself with style guidelines
- Don’t be afraid to ask

Purpose of peer review

- Promote new ideas and different views
- Expose authors and reviewers to new ideas and perspectives
- Maintain integrity of journal
- Search out and destroy
  - Faulty or weak approaches or analyses
  - Faulty computation or statistical inferences
  - Ignorance of related research

Read before you commit to the review

- Read the abstract before and after the paper
- Look for
  - A concise summary of the paper including a statement of intent and conclusions
  - Does the information in the abstract coincide with information in the paper?
  - Is the abstract merely a "cut and paste" from the major sections?

The Introduction

- Is it clear why the study is important?
- Is the scope of the investigation defined?
- Are there varied sources from past work to help define and refine the problem?
- Does the introduction contain a statement of intent? A hypothesis (where appropriate)?
- Is the language and background appropriate?

Methods and Results

- Very important!
- Is the approach clearly defined?
- Have sources of error and uncertainties been discussed?
- Is there enough detail? Too much detail?
- Are results clearly presented?
- Are statistics applied correctly?

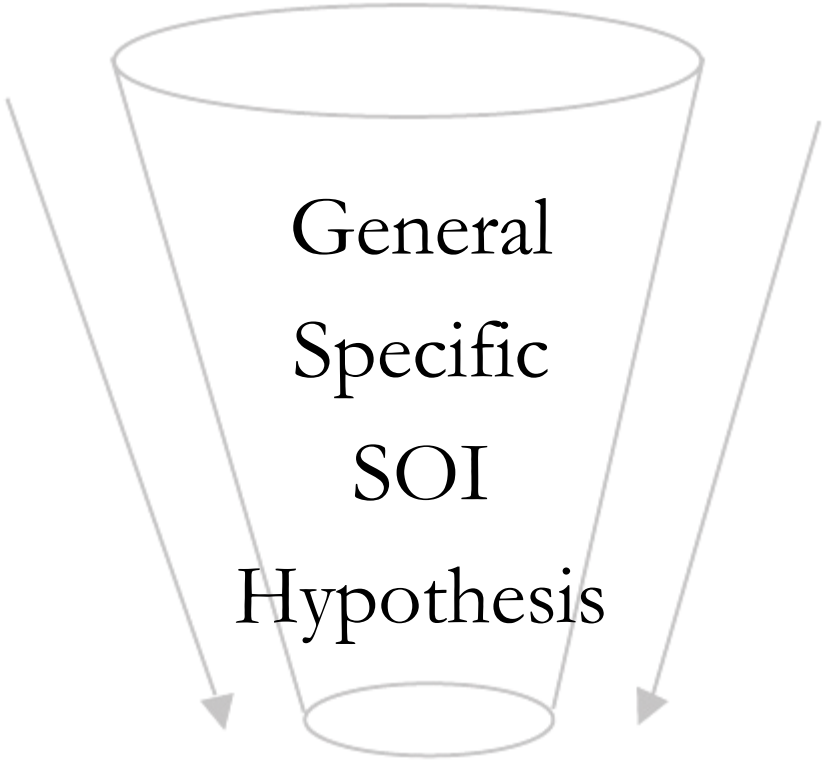
Tables, Graphics, Figures

- Do graphics meet the requirements of the journal?
- Is each one necessary?
- Is the number of significant figures appropriate?
- Are you looking at raw data or summarized data?
- Should a figure replace a table?
- Are graphics presented properly and referred to in text?

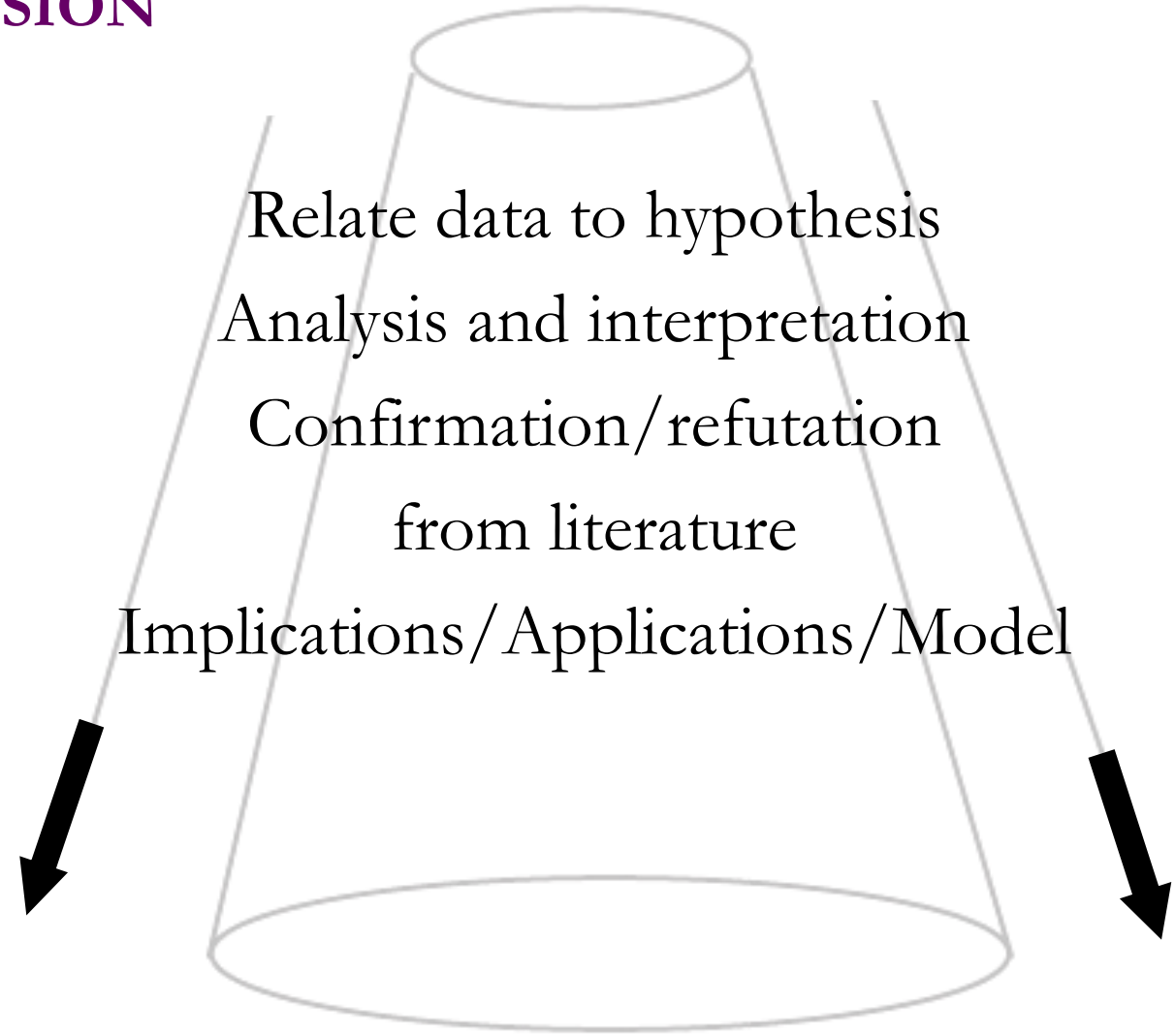
Discussion & Conclusions

- Are the results interpreted within the scope of the study and with respect to the statement of intent or hypothesis?
- Are other works brought in to strengthen the argument (NOT merely similar results!)?
- Does the discussion/conclusions tie back into the introduction?

INTRODUCTION



DISCUSSION



NO NEW MATERIAL! NO SURPRISES!

A look at references

- How old are the references?
- Are there important papers missing?

After the initial perusal…

Read the entire paper, then write a summary. Your summary should be as concise, if not more concise, than the author's

Write a paragraph about what's good about the paper (not always necessary)

Major comments: Write about the assumptions, approach, analysis, results, conclusions, references. Suggest ways to improve where improvement is necessary.

The process (continued)

Minor comments: style, grammar, spelling, conventions, figures, tables….

Recommendation: Does the paper merit publication? Don't assume that a senior editor can recognize your acceptance or rejection of an article through your comments alone.

When to say no…

To the review:

When you're not comfortable with the material, you have a conflict of interest, or you do not have the time to give the matter its proper amount of attention.

What next? Tell your editor immediately and, if possible, suggest an alternate reviewer.

When to say no…

To the article:

50% of articles are rejected according to *Peer review in scholarly journals: Perspective of the scholarly community – an international study*

"Editors reported that the average acceptance rate for their journals was about 50%, which is consistent with other studies. About 20% are rejected prior to review (either because of poor quality (13%) or being out of scope (8%)) and another 30% are rejected following review. Of the 50% accepted, 40% are accepted subject to revision. Acceptance rates were lower in humanities and social sciences, and higher in physical sciences/engineering journals."

www.publishingresearch.net/PeerReview.htm

Levels of yes/no

- unconditionally accept the manuscript or proposal (publish as is)
- accept it in the event that its authors improve it in certain ways (publish with minor revision)
- reject it, but encourage revision and invite resubmission (likely requires major revision)
- reject it outright (train wreck)

Avoid this!!!

"There seems to be no study too fragmented, no hypothesis too trivial, no literature too biased or too egotistical, no design too warped, no methodology too bungled, no presentation of results too inaccurate, too obscure, and too contradictory, no analysis too self-serving, no argument too circular, no conclusions too trifling or too unjustified, and no grammar and syntax too offensive for a paper to end up in print."

Drummond Rennie

Examples of critical comments

"I have included references that I found that show this work has already been done."

"State of the art techniques will be used, but the research plan does not show the researchers understand how to apply the techniques to this problem."

"This is a sound and well-written proposal in the same vein as those preceding it. The experimental protocols and oversight are well described and will facilitate success of the project. The compounds to be tested are logically chosen."

http://www.ok.gov/ocast/documents/OARS-ReviewerComments.pdf

Examples of critical comments

"The basic idea sounds exciting, and if successful the market is enormous. However, the lack of a technical description of what they are going to specifically do and how they will do it makes the proposal very unconvincing."

"The economic impact statements in the proposal are inflated, unrealistic and undocumented."

"The need for this device is credible and well supported by the proposal."

http://www.ok.gov/ocast/documents/OARS-ReviewerComments.pdf

a. "…The appropriateness of the methodology cannot be judged very well, because the methods applied to elicit WTP as well as the statistical methods for the analysis are not described sufficiently in the section on methodology."

Response: We have been more explicit in discussing our elicitation methods and have changed some of the statistical reporting conventions to be more acceptable to the reviewer. These will be discussed in response to the referee's specific comments.

b. "…The number of references is small and should be supplemented by publications as far as they are relevant for the research questions addressed in this study…"

Response: The number of citations has been increased (now 20, including the Chestnut et al. article, see reference 2[d]). The references provide the reader with citations to some of the basic articles in the conceptual and methodological literature, as well as a relatively large part of the published literature on WTP surveys in developing countries and reproductive health products and services.

d. “Pp. 5/6 yea-saying should be defined…as a tendency to answer yes to a closed-ended question although the true underlying WTP is smaller than the amount…asked.”

Response: In sentence 2, page 5, we have changed the definition to read as recommended by the reviewer

Piled Higher and Deeper *by Jorge Cham* www.phdcomics.com

ADDRESSING REVIEWER COMMENTS

BAD REVIEWS ON YOUR PAPER? FOLLOW THESE GUIDELINES AND YOU MAY YET GET IT PAST THE EDITOR:

Reviewer comment:

"The method/device/paradigm the authors propose is clearly wrong."

How NOT to respond:

✗ "Yes, we know. We thought we could still get a paper out of it. Sorry."

Correct response:

✓ "The reviewer raises an interesting concern. However, as the focus of this work is exploratory and not performance-based, validation was not found to be of critical importance to the contribution of the paper."

Reviewer comment:

"The authors fail to reference the work of Smith et al., who solved the same problem 20 years ago."

How NOT to respond:

✗ "Huh. We didn't think anybody had read that. Actually, their solution is better than ours."

Correct response:

✓ "The reviewer raises an interesting concern. However, our work is based on completely different first principles (we use different variable names), and has a much more attractive graphical user interface.

Reviewer comment:

"This paper is poorly written and scientifically unsound. I do not recommend it for publication."

How NOT to respond:

✗ "You #&@*% reviewer! I know who you are! I'm gonna get you when it's my turn to review!"

Correct response:

✓ "The reviewer raises an interesting concern. However, we feel the reviewer did not fully comprehend the scope of the work, and misjudged the results based on incorrect assumptions.

www.phdcomics.com

title: "Addressing Reviewer Comments" - originally published 5/3/2005