

### Literature review

You will have a 15-minute slot for your presentation. During this time, cover the following points:

- The problem that was solved
  - Brief introduction to the paper you are reviewing.
- How it solved the problem
  - Summarize the key findings and methodologies presented in the paper.
- How did it perform the validation and its Results
  - Critically evaluate the methodologies used and discuss the relevance and significance of the paper concerning the broader research topic or problem
- What are its strengths and weaknesses
  - Summarize the strengths, weaknesses. *Offer your critical perspective* on the paper. Discuss what you agree or disagree with and why.

## Reviewer

After your presentation, each group will choose two presentations presented after theirs (except the last few ones who will choose the ones presented before them) and write a review using these guidelines:

- Evaluate the paper based on the aspects mentioned earlier.
- Discuss what was well-presented and what was lacking in the work section-wise.
- Use a point system from 0 to 5, with 0 being the lowest and 5 being excellent, to rate each section of the work as a reviewer.
- The deadline for submitting your reviews is 15<sup>th</sup> Nov

# Why do we need to publish?

## Berry's World



"He didn't publish, so he perished."

- To disseminate our work to our community
- To gain prestige and recognition from our peers
- To show our research performance to our funding bodies
- To validate our findings

## The IMRAD structure

What question was studied? Introduction

How was the problem studied?

Methods

What where the results?

Results

And

What do the findings mean?

Discussion

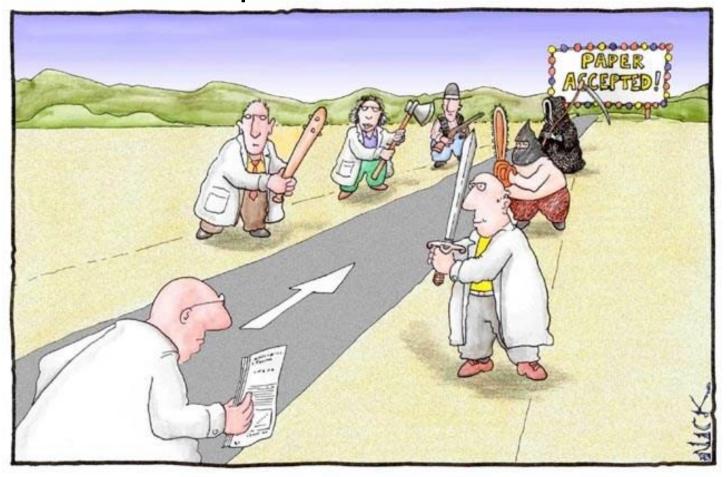
# The role of the scientific journal

- A scientific journal aims to disseminate original, valid, and novel scientific knowledge to progress the advancement of science.
- Journals are a part of the scientific method as they play an essential role in the last phase of dissemination and communication of the research findings.

# Types of publications

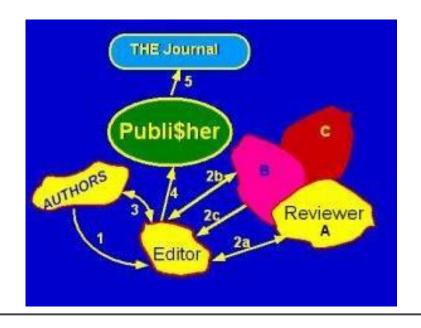
- Letters
  - Communications and short descriptions of current research findings which are considered urgent
- Notes
  - Short descriptions of current research findings which are not considered urgent
- Reviews
  - Description of previous literature written in a narrative way about the state of the art in a field
- Research articles
  - First acceptable, publicly-available manuscript containing sufficient information to make it the object of evaluation (peer review), to show reproducible results, and to evaluate the intellectual processes undertaken during the research study to justify the conclusions reached.

# The peer review process

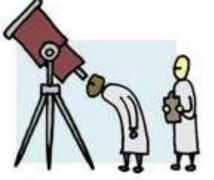


Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

# Reviewing Process for Scientific Journals

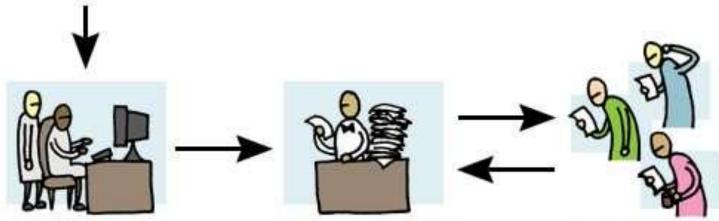


- 1. Article to selected reviewers
- 2. Reviewers criticize/suggest
- 3. Editor reinforces "2" to authors
- 4. Revision/review cycle(s)
- 5. Accepted paper sent to publisher



#### The peer review process

Scientists study something.



Scientists write about their results. Journal editor receives an article and sends it out for peer review. Peer reviewers read the article and provide feedback to the editor.



Editor may send reviewer comments to the scientists who may then revise and resubmit the article for further review. If an article does not maintain sufficiently high scientific standards, it may be rejected at this point.



If an article finally meets editorial and peer standards it is published in a journal.

# The peer review process

#### Blind review

The authors ignore who are the reviewers of their manuscript, but the reviewers do know the authors' identity

#### Double-blind review

None of, the authors or reviewers know the identity of the other

### Open peer review

Both, authors and reviewers know the identity of the other

How are published papers evaluated?



## The role of citations/references

- Support the authors' arguments
- Demonstrate to the reviewers that you are knowledgeable of the field of study
- Refute, compare, or validate the work of authors

# Pay tribute and acknowledge the contributions of their peers

# Goals for you as a Reviewer!

#### Become educated consumers

- understand the research process
- know where to look for information
- be able to evaluate research results

#### Become competent producers

- writing
- presentation
- research methods

Get an overview of your field

## Reviewers

#### Editors select reviewers

- scientific expertise
- past performance
- open-mindedness
- timely response

### How do you review?

- Read the paper
- Read the review form

Useful dimensions to look at:

Novelty, Clarity, Importance, Timeliness ...

- Read the paper
- Wait a few days...
- Read the paper again
- Write review

## Writing a Review

• Every review form always has a preamble and a core part. Some may require numerical scores to assess certain qualities

#### **Preamble**

- Title and author of a paper
- Summary of the paper: This needs to be only 1-3 sentences, but it demonstrates that you understand the paper and can summarize it more concisely than the author in his abstract
- Good things about the paper (one paragraph): This
  is not always necessary, especially when the review
  is generally favorable. However, it is strongly
  recommended if the review is critical. Such •
  introductions are good psychology if you want the
  author to drastically revise the paper

#### **Core part**

- Major comments: Discuss the author's assumptions, technical approach, analysis, results, conclusions, reference, etc. Be constructive, if possible, by suggesting improvements
- Minor comments: This section contains comments on style, figures, grammar, etc If any of these are especially poor and detract from the overall presentation, then they might escalate to the 'major comments' section. It is acceptable to write these comments in a list (or bullet) form
- Recommendations

## What is a review?

- "Something that will ruin your day" Alan Bundy
  - Even if it is good!
- The stamp of scientific quality
- Feedback from your peers
  - Future directions?

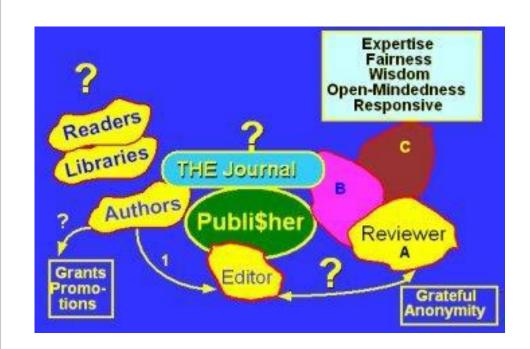


## Reviewers

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- 1. scientific expertise
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in unrewarded anonymity



# Presentation

## Structure of a good presentation

- Greet the audience and introduce yourself
- Introduction
  - the subject and purpose of your presentation
- The main body of your talk
  - Meet the promises you made in the introduction
- Conclusion
  - summarize your main points and their implications

# What is the purpose of your presentation's message

Pick one or a combination of two.









# Common mistakes of unexperienced presenter (in science)?

#### The three enemies

- Time
- Posture/Voice
- Content

## Time

- Beware of time!
- If you are anxious, you will speak too fast, finish earlier, and make it impossible for the audience to understand
- You will bring them into a state of anxiety not suitable for learning
- You need to breathe, maybe meditate, or using anchor techniques
- If you put too much material to impress the audience, you are going to fail the presentation
- No one can absorb more than some information per amount of time

# Posture/Voice Posture

- Beware of posture
- •Learning requires openness, no sign of **fear** or **aggression**
- •If you are not confident and you are closed, your audience will not be engaged
- •If you are too egocentric and make up a show for a scientific presentation, this also does not look appropriate

### Voice

- •Voice is also important
- Pace (not too fast –alert mode)
- Pitch (not too high –alert mode)
- Volume (appropriate for the room)
- •Your voice and posture must emanate trust (this goes together with ethos but be aware of scams!)

## Content

- Simple design is preferable
- Consistent design, at least for the same segment/theme
- No text on pics
- Preferably black on white (boring, but readable)

#### INTRODUCTION

Motor Car, any self-propelled vehicle with more than two wheels and a passenger compartment, capable of being steered by the operator for use on roads. The term is used more specifically to denote any such vehicle designed to carry a maximum of seven people.

The primary components of a car are the power plant, the power transmission, the running gear, and the control system. These constitute the chassis, on which the body is mounted. The power plant includes the engine and its fuel, the carburettor, ignition, lubrication, and cooling systems, and the starter motor.

# End of Lecture