A photograph of several stacks of books on a wooden surface, with one book in the foreground being open and its pages slightly blurred.

SHARING SESSION: How to Intensify Research & Publications for Academicians

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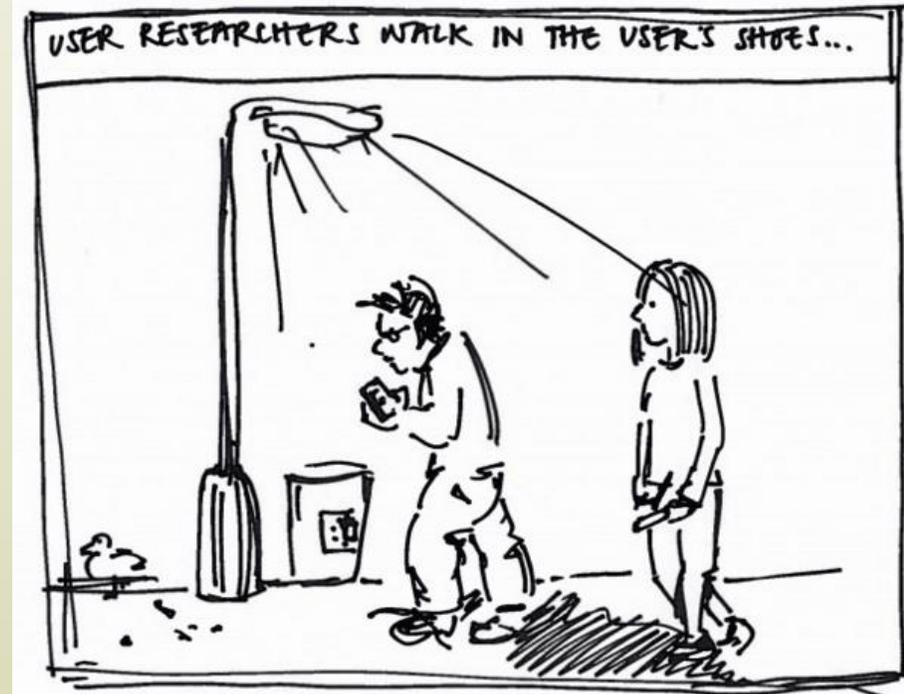
1. What is Research?

- Different Definitions
- “A systematic process of collecting and analyzing information or data in order to increase our understanding of the phenomenon with which we are concerned or interested”
- “A research proposal is a combination of technical and organizational decisions”



Why Research?: Just To Recap

- The Importance of Research
- Publication – Old “Publish or Perish”
- Research normally leads to publication
- Good research needs publication - good research is not considered “good” unless others are informed about it
- Publication is the primary criteria by which research activity is evaluated
- Research is one of core responsibilities of faculty member, but more importantly;
 - Add knowledge to your field (to be shared)
 - Technology transfer – community or at least to RA/RO/Postgraduate
 - Publication & advance career (your name in print)
 - Promotion
 - Consultancy
 - Commercialization



2. Approaches To Research

Five Common Approaches

- Core Area Research Approach
- Collaborative Research Approach
- Research Student Approach
- Angel Research Approach
- Pipeline Research Approach



“Data don’t make any sense,
we will have to resort to statistics.”

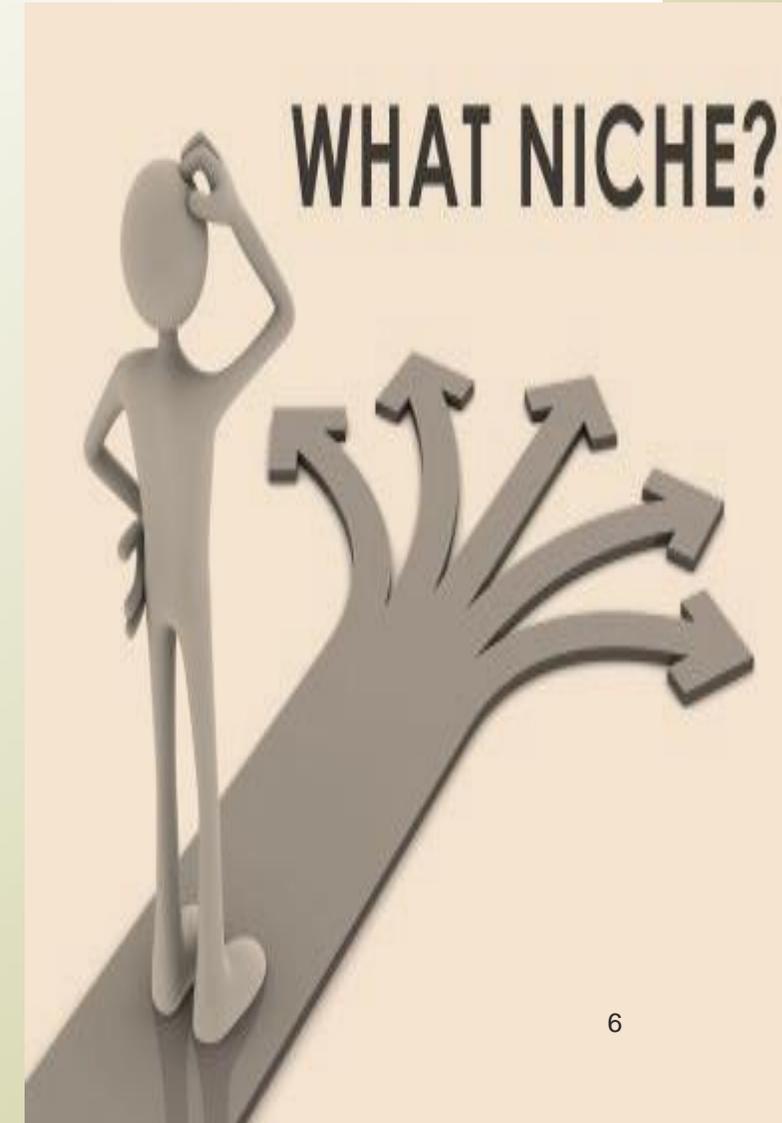
A. Niche Area Research Approach

-Concentrate Research in the chosen area– Perhaps from Ph.D's work.

-Building/establishing from “self proclaim” to “external recognition”– become **niche** area (bread & butter field).

Some Advantages:

- a. Learning curve & economies of scale in research processes.
- b. Core research base is reusable & lends credibility to WRITING PROPOSAL in the specialized area.
- c. Easier acceptance as researcher gains recognition through increased research/writings in the specialized area.
- d. Eventually builds up to being recognized as an expert in the niche area.



B. Collaborative Research Approach

Research work is divided among researchers

If two - Ideal split is 60/40 (perhaps 60% of effort for principal researcher and 40% effort by second researcher, etc.).

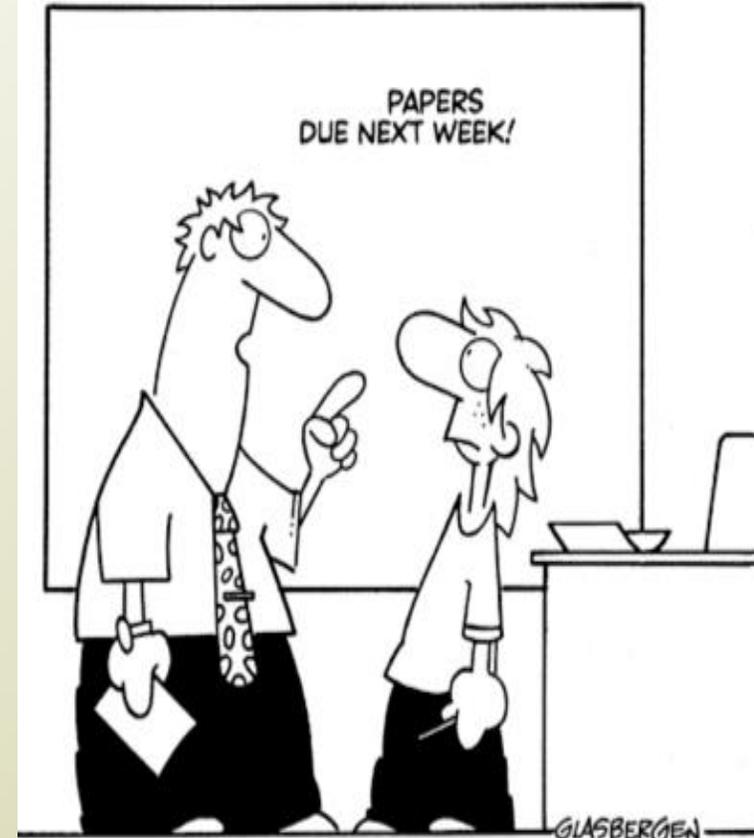
■ Advantages:

- Creatively/work/ research is pooled. Experience/skill and critical mass are integrated (cross disciplines)
- Research and writing are refined through discussion.
- Draws on complementary strengths not only in research (e.g. strengths in data analysis vs. synthesizing literature review)
- Often increases pressure/commitment to complete the agreed-specific tasks of the research project.
- Increases productivity and acceptance rate for the research proposal



C. Research Student Approach

- Always bring new ideas (from various backgrounds/sub-fields)
- To learn from others & energize new ideas
- Look for complementary relationships - synergies managed to secure/generate research idea
- Expand & lead the project
- Sometimes link to research funding



"Every word you need is in the dictionary.
You just have to put them in the right order."

D. Angel Research Approach

- Look for angel “investor/funder”
- May happen through ‘networks’ (academics & non-academics)
- May happen through contact-“**KNOW-WHO-LOGY**”
- Ideas on the kinds of research we can do – **Conferences/Seminar**, besides business meetings
- May come with reward/commissionable research or contract research
- Develop win-win strategy – contract research & publication

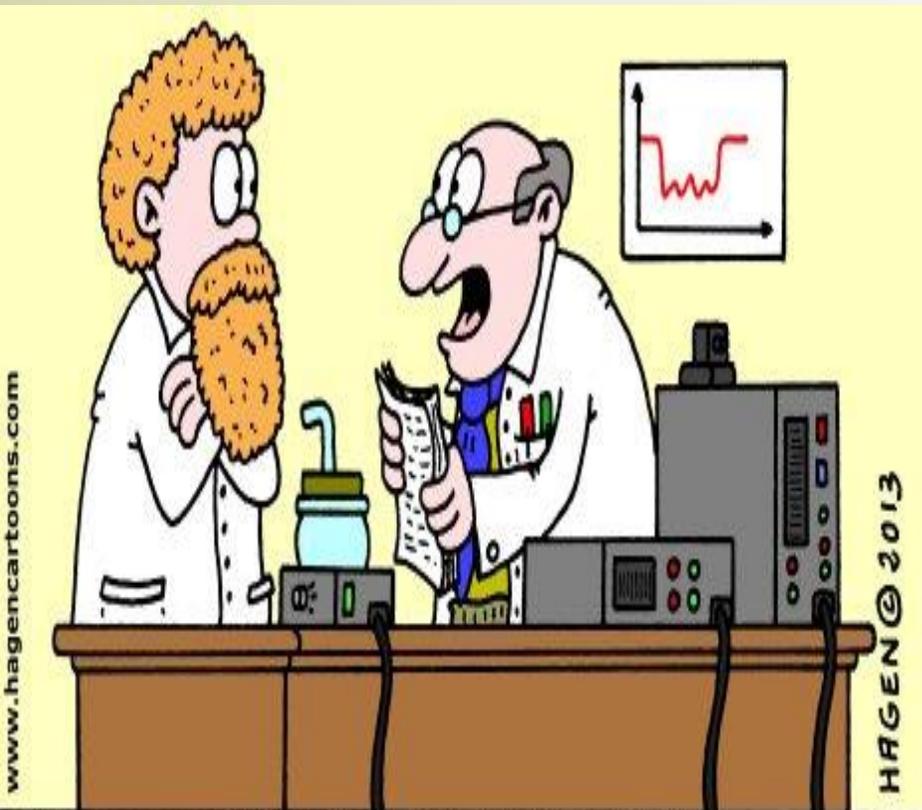


E. Pipeline Research Approach

- Idea is to work on developing a few research proposals simultaneously
- Or else we may get stuck on one idea/research project
- Requires initially building a critical mass of at least two research projects that are ready for submission
- Once we develop a critical mass we need to maintain it (if one proposal is accepted another one should be ready to be added to the pile of submitted research proposals).



3. How to Secure Research Funding?

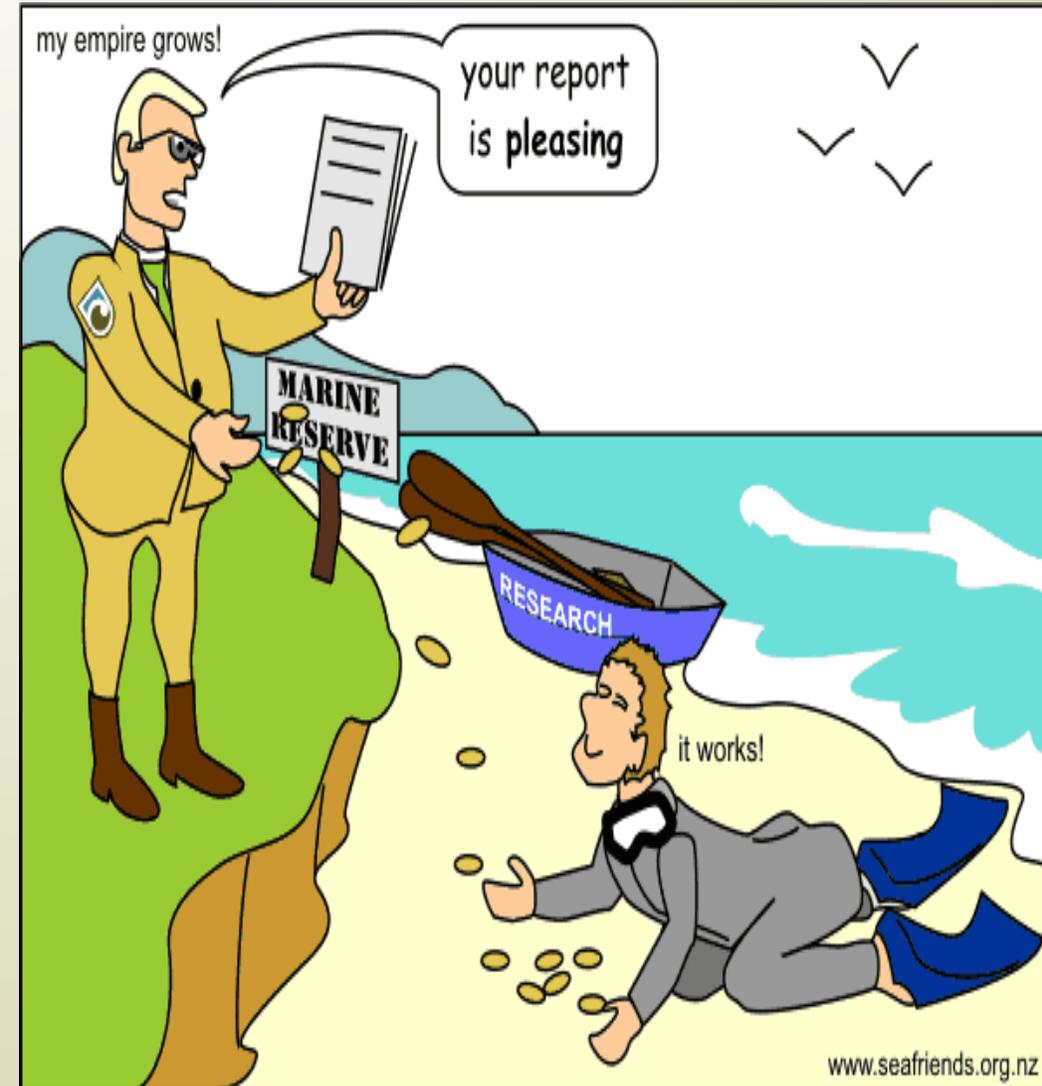


**It's an ethical dilemma now:
We have solved the problem but still have
two years of funding through our research grant...**

- First step of writing the proposal is to read the **GUIDELINES** by the Funding Agency/Sponsor
- Funding agencies (like MOHE, MOSTI, MOA) always change their guidelines each time the call for proposals are released.
- Writing research proposals are like writing an exam, the answers should fit into the answer scheme: proposal guidelines
- Start being competitive

Example: Fundamental Research Grant (FRGS)

- Is about basic, fundamental research, which involves the exploration of new ideas, concepts or theories to generate new discoveries, expansion of knowledge and technologies to deal with unresolved problems.
- FRGS is also known as basic research or scientific investigation for its own sake.
- The goal of the FRGS is to allow the researcher to gain or discover new knowledge and understanding of the physical world that may lead to:
 - new theories or extending and refuting existing theories;
 - new models or new frameworks
 - policy recommendation
 - improving technology at the fundamental level.



[...Example: Fundamental Research Grant (FRGS)]

- Answers the questions 'Why' or 'How'
- This is different from applied research, in which scientific investigation is carried out to discover a solution to a practical problem.
- Survey, baseline and observational studies are not, in themselves, fundamental research, although it could constitute one of the methodologies.



Why some applicants are not successful?

- Unfocussed research: No original idea or the proposal is a routine application of a known technique or research
- Principal Investigator has no relevant knowledge / expertise or the proposer is not qualified or capable.
- Does not lead to new findings / new theory / new idea generation
- Objectives are not clearly spelled out.... not fundamental !
- Lack of specific research problem or not in the national interest.
- Outcome is not clear.
- Unrealistic scope : too ambitious or very limited !
- Does not follow guide (please read carefully) , especially on budget



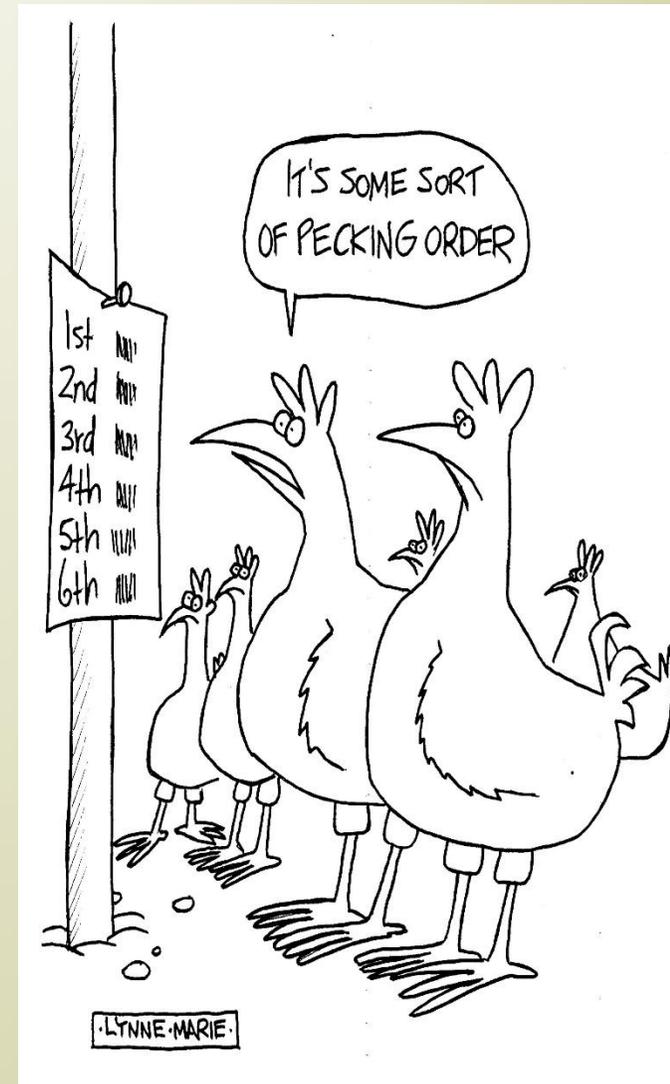
4. Publications: Deciding where to publish

- Conference proceedings, book chapters and journals
- 26,000 journals – how to choose?
- Different strategies
 - topic and journal coverage (check website)
 - Is it peer-reviewed?
 - Most appropriate readership
 - Prestige
 - Length of time from submission to publication
 - Highest ‘impact’
- Journal impact factors



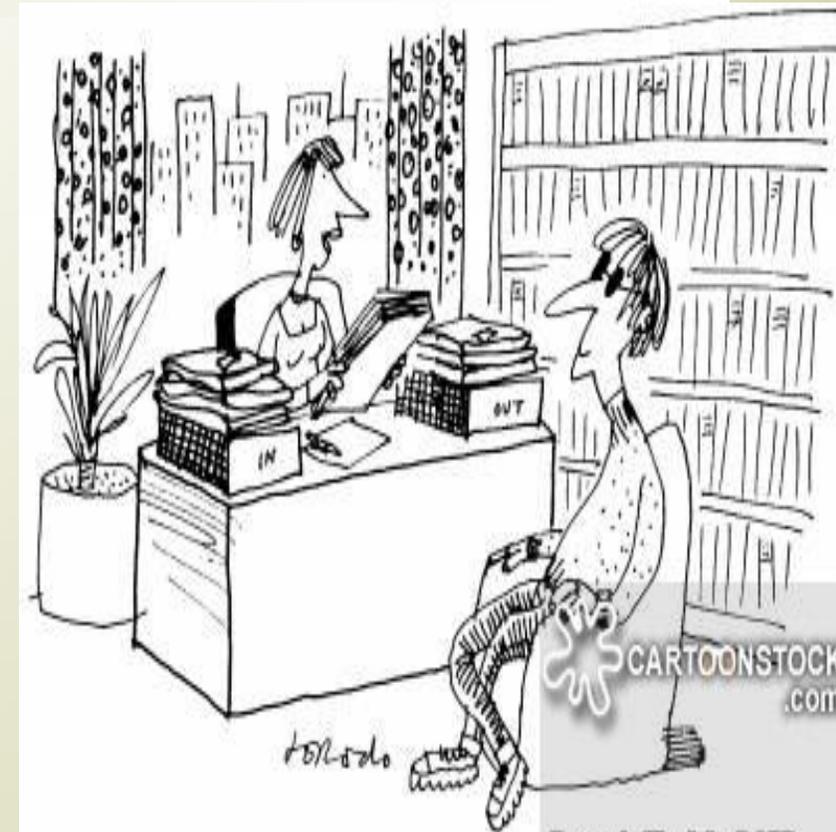
5. What are Impact Factors?

- An impact factor attempts to provide a measure of how frequently papers published in a journal are cited in the scientific literature.
- Calculated as the average number of times an article published in the journal in previous 2 years has been cited in all scientific literature in the current year.
- So, if there were an average of 1000 citations in 2007 for 100 articles published in a journal in 2005 and 2006, the impact factor would be 10.
- Most journals have impact factors that are below 2.
- Journals with impact factors above 4 tend to be regarded as having a high impact factor, and those above 10 are stellar,
 - e.g. Nature = 28, TREE = 12, J. Applied Ecology = 4.5, MEPS = 2.3, Journal of Environmental Economics and Management = 1.6, Environmental and Resource Economics = 0.9.



What editors look for in a manuscript (Journal)

- Quality
 - good science: well planned, well executed study
 - good presentation
- Significance and originality
- Consistent with scope of journal
- Demonstrated broad interest to readership
- Will it cite?
- Well written 'story'
- Author enthusiasm



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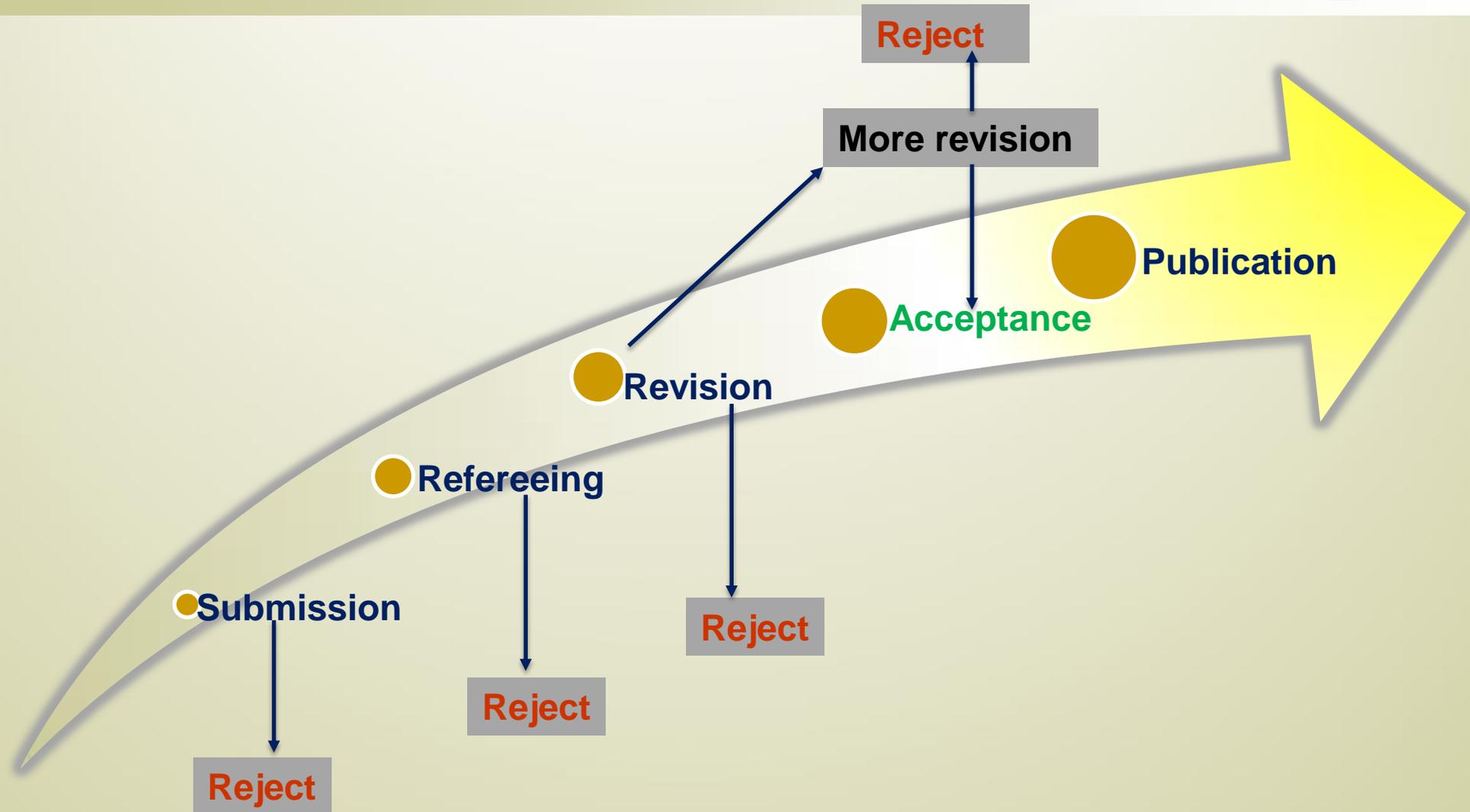
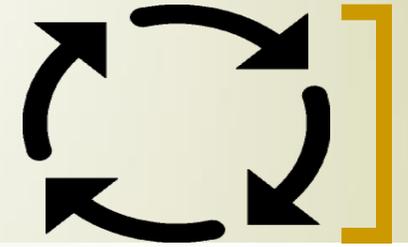
"Your book's a bit Stephen King, a bit John Grisham, a bit Will Self. It's exactly the kind of plagiarism we're looking for."

Writing the paper: key points

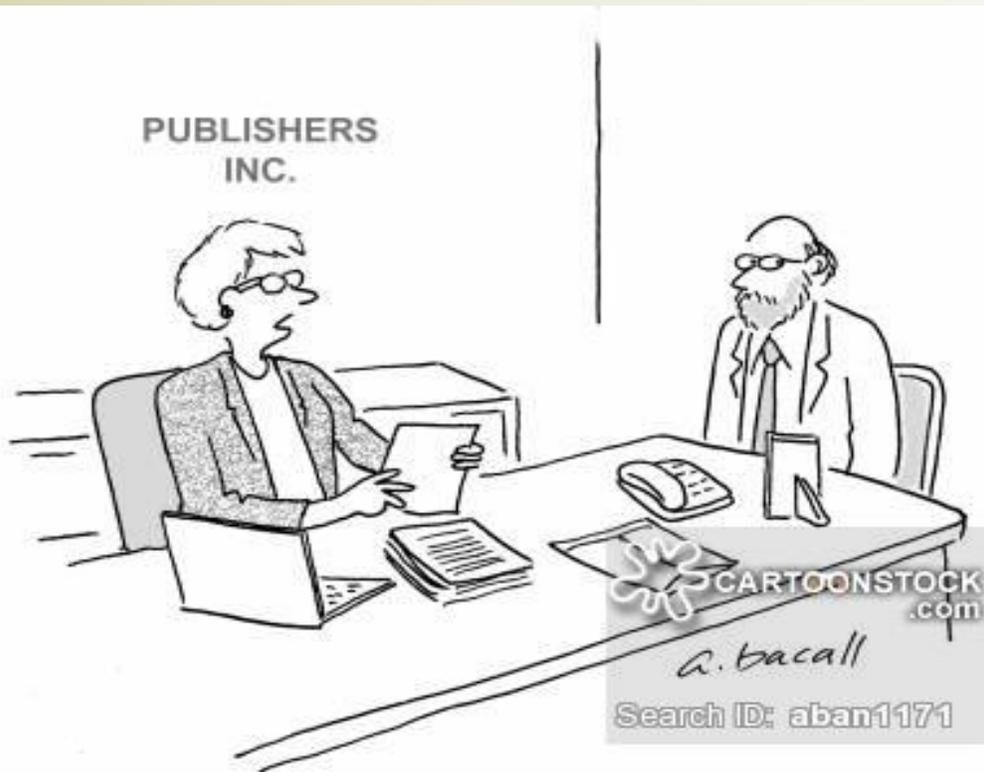


- Strong Introduction
 - Engage the reader
 - Set the scene, explain why the work is important, and state the aim of the study
- Clear, logically organised, complete Methods
 - Provide enough information to allow assessment of results (could someone else repeat the study?)
- Results
 - Be clear and concise; avoid repetition between text, tables and figures
- Relevant Discussion
 - Start strongly – were aims achieved?
 - Discuss significance and implications of results

Journal publishing process



[Attracting the editor/reader]



"I have to be honest with you. There are better ways to attract women than to be a self-published author."

- There are lots of opportunities for rejection!
- Remember: your paper is competing with many others for the attention of editors and readers
- Title
 - Brief, interesting and accurate
- Abstract
 - Attract readers to your paper
 - Aim for 4 sections: why, how, what and implications
 - Include important keywords for searching
 - Make it clear and easy to read

Before you submit

- Internal review
 - Ask your peers to read it to get an alternative perspective
 - Ask someone outside your field to read it
- Read the Notice to Authors
 - Follow format and submission instructions
- Write a covering letter to the editor
 - Should clearly explain (but not overstate) the scientific advance
- Submit with the consent of all authors and to only one journal



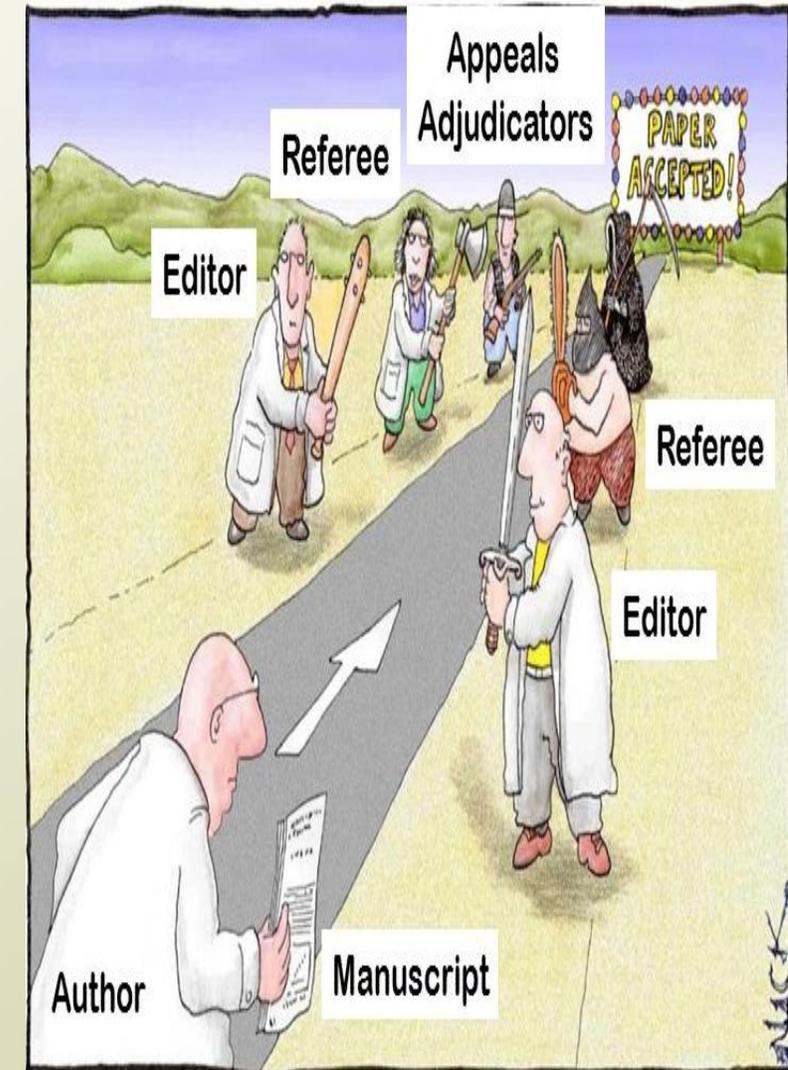
After you submit: the refereeing process

- Referees are crucial to quality control – they play a vital role in the scientific process
- Selection criteria
 - Knowledge of the field, expertise, reputation
 - Specific recommendations
 - Editor's experience of referee's style
 - Reliability
- Referee selection: two or three referees
 - Referees hand-picked for each paper
 - Use cited references, keyword searches, related papers
 - ISI Web of Science, web (Google Scholar), journal/publisher databases
 - Editorial Board member recommendations



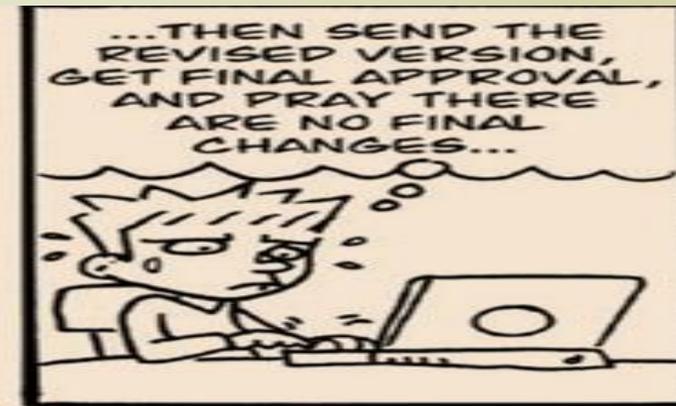
Understanding reviews: what makes a good review

- Good reviews provide the editor with the information on which a decision can be based
- The best are *insightful, articulate and constructive*
- They tell the editor:
 - What is interesting about the paper
 - How the results are significant
 - What contribution the paper makes to the field
 - What can be done to improve the paper
 - If the paper is not publishable and why



Detailed comments in the review

- A good review answers the following questions and provides suggestions for improvement:
 - Does the introduction explain why the work was done and the hypothesis being tested?
 - Is the experimental/study design appropriate?
 - Are the methods clearly described to enable full assessment of the results?
 - Is the analysis appropriate?
 - Are the results presented effectively?
 - Is the work discussed in the context of all relevant literature?
 - Does the discussion make clear the significance and wider implications of the work?
 - Are the conclusions supported by the data presented?



Referees' reports: what the author sees (and what the editor sees)

What does the author see?

Reviewer Number 1

Title XXX

Authors YYY

Quality of the Science

Mostly competent, suffering from serious flaws

Importance of the Science

Important research on topic of broad significance; novel aspects

Quality of Science Rating 3

Importance of Science Rating 3

Overall Assessment

Reject in present form, but encourage submission of new manuscript

Reduction in Length

Yes

What does the editor see?

Reviewer Number 2

Title XXX

Authors YYY

Quality of the Science

Experimentally and/or theoretically excellent reliable data, no flaws

Importance of the Science

Important research on topic of broad significance; novel aspects

Quality of Science Rating 4

Importance of Science Rating 4

Overall Assessment

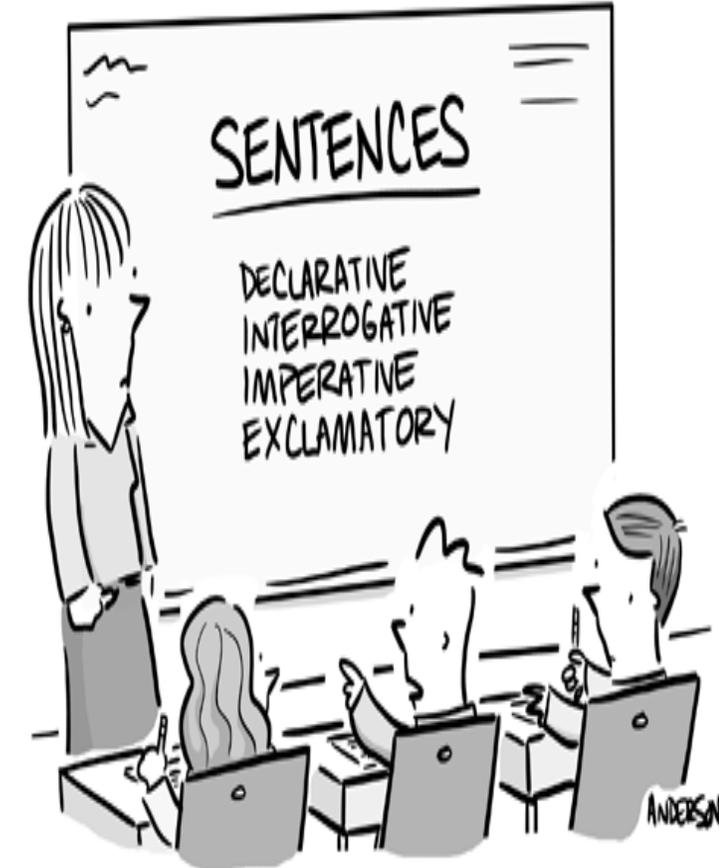
Accept after minor revision, no further referee assessment

Reduction in Length

No

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"Don't forget run-on. I use those all the time."

Responding to referees' reports



- Read the editor's letter first for instruction
- Take a deep breath: proceed to the reports
- Put them aside for a day, or two, a week...
- Re-read reports and discuss with coauthors ...
- Revise paper and prepare response document
- Remember –
 - Even comments that seem aggressive or ignorant can be helpful
 - Always view this as a chance to improve the paper

Good response to referees' reports are

- Well organised
 - Address common themes at start
 - Use a 'quote and response' OR numbering system of points raised by each referee
- Informative
- Provide full explanations
- Do not overlook or ignore any points
- Assertive (and polite)



Search ID: cwin3920
"It's yet another customer survey asking about our last oil change. Was it poor, fair, very good, blissful or orgasmic?"

A good example

Referee:

“Abstract – too long and too little about rationale; some repetition and some jargon presented without explanation (e.g. SL and age-0)”

Author:

“The rationale behind the study has been established at the beginning of the abstract (L29-32). The abstract has been shortened to 200 words and all jargon except age-0 has been removed (we don’t agree that this term will confuse readers as it is commonly used). However, we have defined age-0 in the Introduction (L62 revised MS)”



“It was a great read, except I collided with run-on sentences, tripped over broken English and got knocked about by a dangling participle.”

Not so good ...

Referee:

“The presentation is not particularly clear, nor concise. I feel the paper would benefit from being shortened, with more emphasis on the new conclusions and differences from previous works.”

Author:

“As it is clearly apparent that you have not properly read or understood the paper, comments on clarity are irrelevant. The paper has been shortened.”

Referees:

Two three-page reports with many fixable, but major, criticisms.

Author:

“I have changed the MS in line with the referees’ comments.”



HERE IS THE
NOT-SO-GREAT PUMPKIN.

The decision: accept, re-review, reject

- Questions going through the editor's mind:
 - How good is the science in this paper?
 - Is an important issue/area of study being addressed?
 - Is the experimental design appropriate and adequate?
 - Are the analyses appropriate and competently done?
 - Has the study been put in context?
 - Does the paper contribute significantly to the literature?
 - Does the paper tell an interesting story?
 - ***Will it be read and cited?***



Thus, writing for successful publication means...

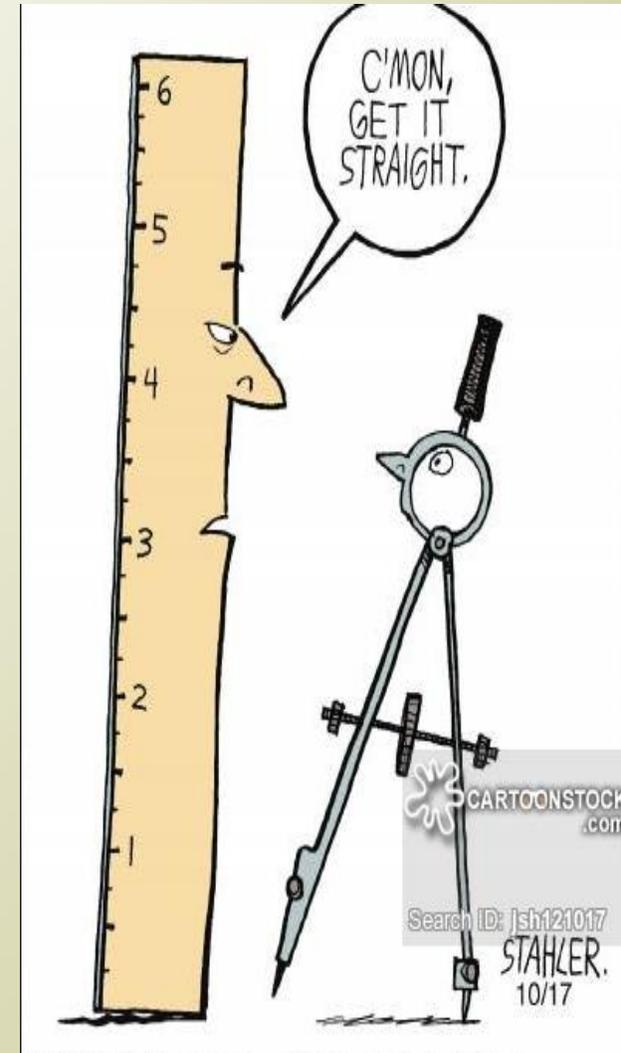
- having a well designed, original study to write about
- selecting an appropriate outlet/journal
- knowing what you want to write
- writing clearly
- making the story interesting
- highlighting the significance of the results
- responding carefully and positively to referees' reports



PUBLICATIONS AND DATA

[6. Straight Ten rules for getting published]

1. Read many papers, and learn from both the good and the bad ones.
2. The more objective you can be about your work, the better the work will ultimately become.
3. Good editors and reviewers will be objective about your work.
4. If you do not write well in the English language, take lessons early; it will be invaluable later.
5. Learn to live with rejection.



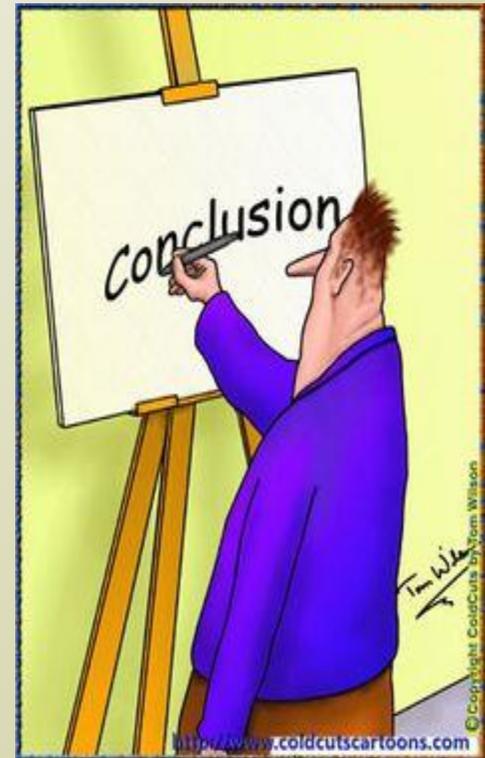
[...Straight ten rules for getting published]

6. Understand what makes good science and what makes good science writing: be objective about them.
7. Start writing the paper the day you have the idea of what questions to pursue
8. Become a reviewer early in your career.
9. Decide early on where to try to publish your paper.
10. Quality (not quantity) is everything.



Conclusion

- Every faculty member may decide- either takes just one approach or five simultaneously. But 10 rules for getting published are essential
- Of course needs hard work, consistency & perseverance
- No carefully prepared effort is wasted
- Reward comes much later (as promotion takes time)
- *Barakath* in the “hereafter” is much more meaningful reward

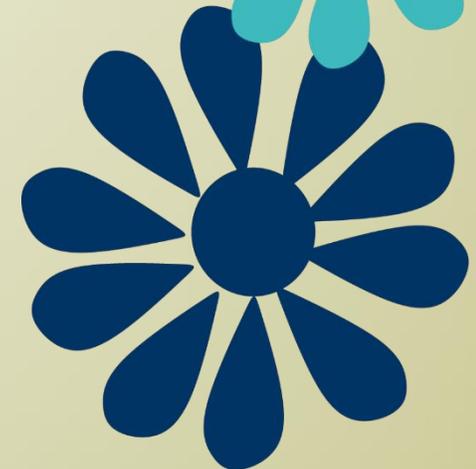
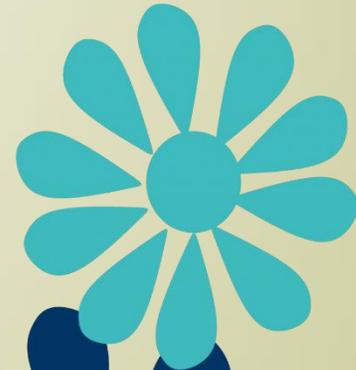
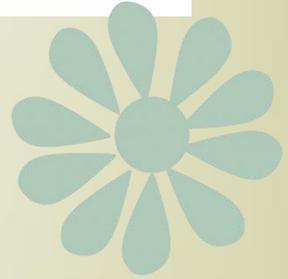


Drawing a conclusion!

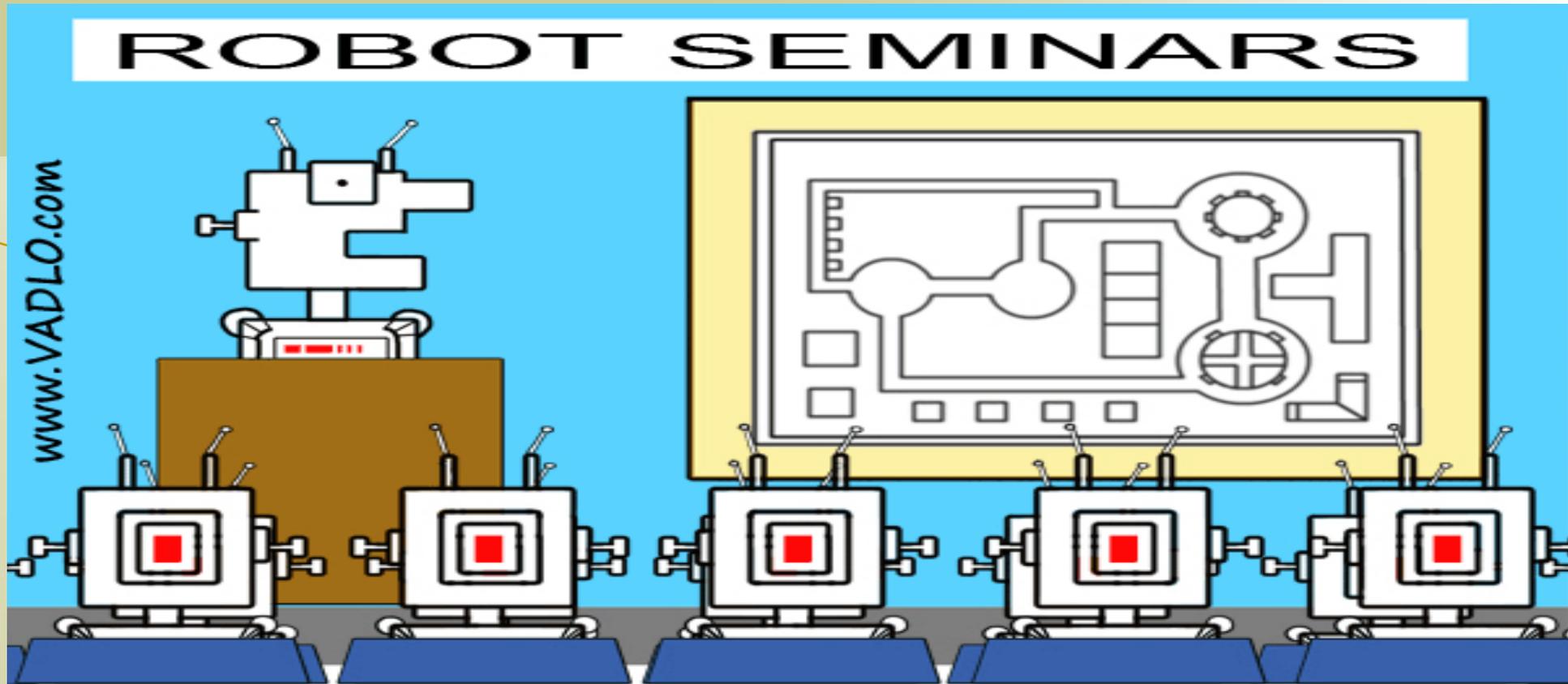


Further information

- Getting your work published (Podcast)
 - http://www.jobs.ac.uk/careers/whitepapers/640/Getting_your_academic_work_published
- PLOS *Computational Biology* – ‘Ten simple rules for getting published’
 - <http://compbiol.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pcbi.0010057&ct=1>
- ‘How to get published in LIS journals: a practical guide’
 - http://www.elsevier.com/framework_librarians/LibraryConnect/lcpamphlet2.pdf



THANK YOU!



“As we have just five mins left,
I will take just 3 million questions.”