

WRITING AN EFFECTIVE RESEARCH PAPER AND GETTING IT PUBLISHED

寫出會讓期刊看上眼的學術論文

主講人：DR EVON WU



WE WILL COVER:

- The process of manuscript submission
- Strategies for writing the introduction
- Method section
- Discussion Section
- Conclusion Section

- Q and A

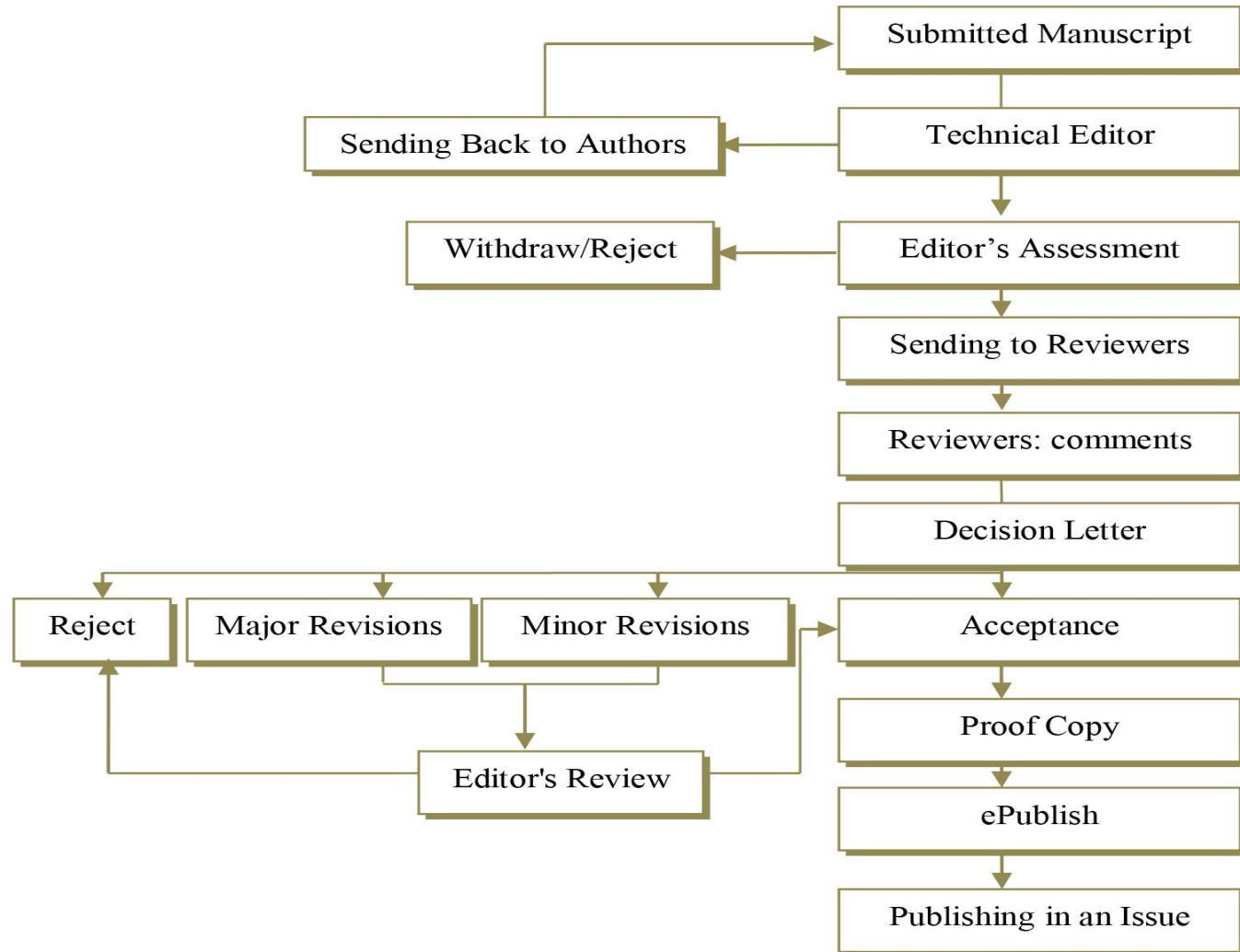


WE WILL COVER:

- **The process of manuscript submission**
- Strategies for writing the introduction
 - background
 - problem
 - solution
- Method section
- Discussion Section ; How to....
 - develop content for your discussion
 - prioritize the order of your paragraphs
 - integrate references into your discussion
 - study limitation
- Conclusion Section:
 - The formula for writing conclusion
- Q and A



WHAT WILL HAPPEN AFTER YOU SUBMIT YOUR PAPER?



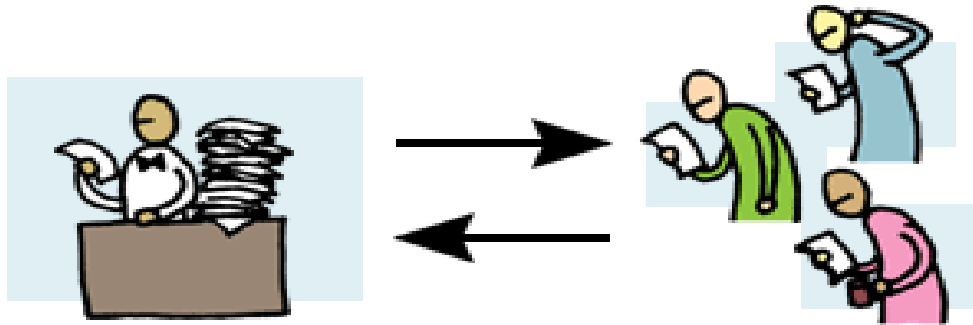
DECISION

- ❑ Accepted for publication
 - ❑ Minor revisions
 - ❑ Major revision
 - ❑ Reject
-
- ❑ English editing required



Reviewer's confidential remarks to the editor:
plagiarism, fraud, unethical procedures, duplication,
conflicts of interest.





- Importance
- Originality
- Relevance to reader
- Usefulness
- Truth
- Excitement/ wow factor
- Clear writing

**CANNOT
Quantify**



Influence

~~Engage your reader,~~

so they would change their mind.....

change what they think....

change what they decide about your manuscript



Introduction

Influence your reader !!

Method

Result

Discussion

**Influence your
reader !!**

Conclusion



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INTRODUCTION



INTRODUCTION

What is already known

Literature Review

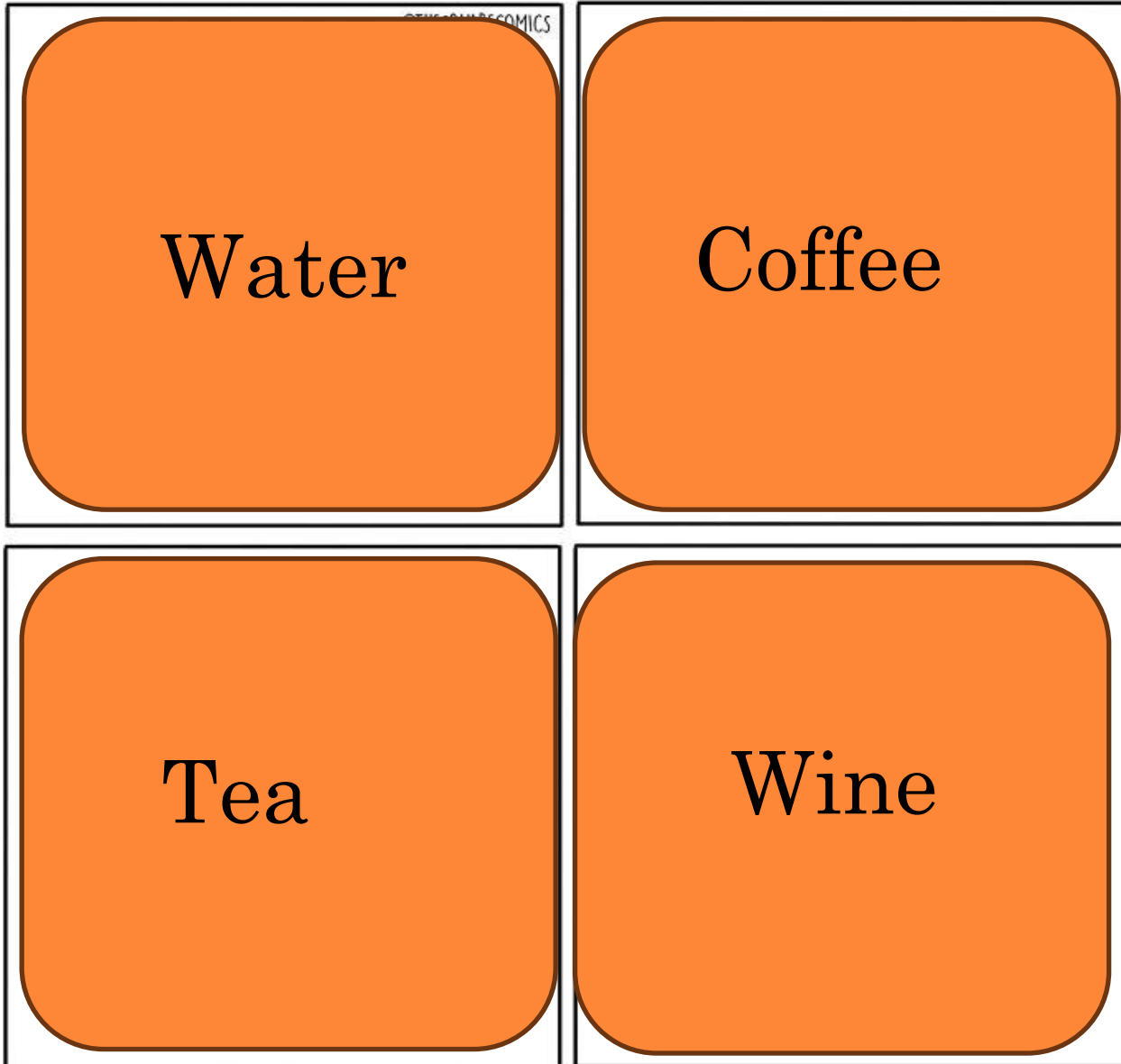
Selling point

Conflict

Solution



SELLING POINT



CONFLICT :

- **tension**
- **challenge**
- **red flag**
- **inconsistency**



But,
Although,
However,
Nevertheless,
Having said that,
Despite the fact that,

(**despite** or **in spite of** both followed by a noun)



CONFLICT

Water
poisoning,
Brain cell
swelling

Coffee

Thinning of bones
and fractures;
irregular heartbeat
and even death

Tea

reduce your iron
absorption,
dangerous for
pregnant women

Wine

increases the
risk of stomach
and pancreatic
cancers.



PINPOINT YOUR TARGET AUDIENCE

○ What's the Problem ?

- who's problem?
- who's affected by this problem?
- readers' problem and their research?



SOLUTION

- Benefit
- Cost
- Time
- Clarification



INTRODUCTION

Literature Review

Selling point

Conflict

Solution



Introduction

✓ done

Method

Result

Discussion

Conclusion



METHODS

- Subjects
- Samples
- Material
- Equipment
- Measurements
- Calculations
- Data Analysis



Procedures



EXPERIMENT : ANTI-AGING PILLOW



Subjects

Samples

Material + Equipment

Measurements

Calculations

Data Analysis

Be specific !



Introduction

Method

Result

Discussion

**Influence your
reader !!**

Conclusion



WE WILL COVER:

- The process of manuscript submission
- Strategies for writing the introduction
 - background
 - problem
 - Solution
- Method section
- **Result section**
- Discussion Section ; How to....
 - develop content for your discussion
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RESULT

- **List all the results from your experiments**
 - significant difference ($p < 0.05$)
 - a trend
 - No significant difference ($p > 0.05$)
- **Rank** the importance from the most relevant to the least relevant - \rightarrow the approx. order of your discussion.

How to rank?



HOW TO RANK?

$P < 0.00001$

$P = 0.004$

$P = 0.007$

$P = 0.01$

$P = 0.05$

$P > 0.05$

~~From the smallest p-value to the largest p-value?~~

**Linked this to your research question!
(most interesting finding)**



REPORT NULL RESULTS? $P > 0.05$



IS IT FAIR?

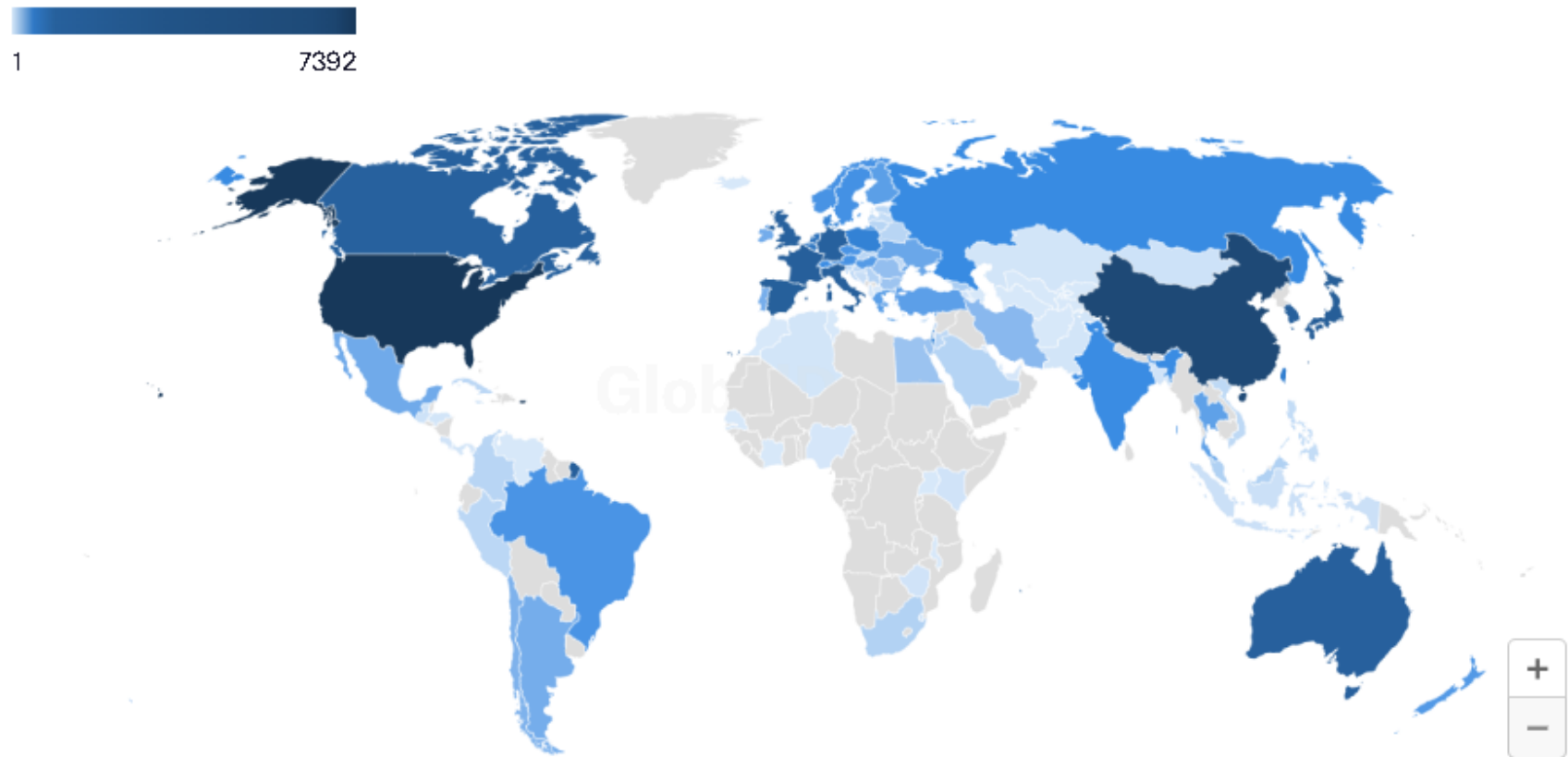
Take advantage of the data

→ a consistent positive win



The US has the most sites with an ongoing or planned early-phase oncology trial

There is a total of 21,517 Phase I-II oncology trials either ongoing or planned



Multinational trials are counted in each region/country/state where they are conducted.

Source: GlobalData

100 RESEARCH CENTERS

60 = no significant

40 = significant



IS IT FAIR?

Take advantage of the data

→ a consistent positive win



Report statistically
insignificant results the same
way you report statistical
significant results.

Otherwise you contribute to
under-reporting bias.



WHO PUBLISHES NULL RESULTS?

- Journal of Articles in Support of the Null Hypothesis
- Journal of Negative Results – Ecology and Evolutionary Biology
- PeerJ
- ClinicalTrials.gov
- PLOS ONE's Missing Pieces Collection
- Major Journals.....*tag along with your other findings.*



DISCUSSION

Explain what these findings mean

✓ Do not just repeat the result section!

○ **Focus on Relationship/ Association/
Implication/ Suggestion/ new
discoveries or inventions**

positive / negative / exponential / inverted/



- Presence of X was found when Y was activated **because**
- There was a significant positive correlation between X and Z, however a significant difference was found between the two conditions **due to....**
- Interestingly, this correlation is related to the stimulation of A. **It is likely that.....**
- Interestingly, there were also differences in the ratios of**which may suggest that**
- There are **several possible explanations for this result.first,..second....**
- When X cells were stimulated with Y, no significant difference in the number of Z was detected. **This may be due to**
- It is difficult to explain this result, but it **might be related to.....**
- **A possible explanation** for this might be that.....
- Since this difference has been found elsewhere **it is probably (not) due to**
- **There are three likely causes** for the differences



DISCUSSION

Reference other papers

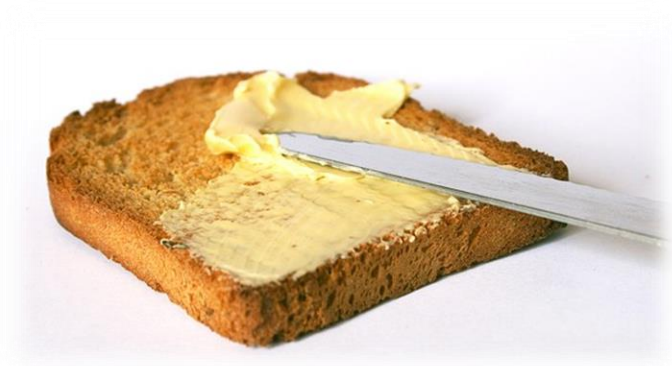
- ✓ Support your methodology
- ✓ highlight the importance and originality of your research
- ! Explain why your result is different from the literature.



Sugar



Fat



RISK OF HEART DISEASE



50 YEARS AGO, SUGAR INDUSTRY QUIETLY PAID SCIENTISTS *TO POINT BLAME AT FAT*



Source :<https://www.npr.org/sections/thetwo-way/2016/09/13/493739074/50-years-ago-sugar-industry-quietly-paid-scientists-to-point-blame-at-fat>



- The findings of the current study **are consistent** with those published earlier
- This finding is **in agreement** with Edward's findings which showed
- **In accordance** with the present results, previous studies have demonstrated that

Be Brave :

- **However**, the findings of the current study **do not support** the previous research.....
- **In contrast** to earlier findings, the gene expression of X was not elevated. This may be due to....
- These results **differ from** the work conducted by A and B, **but** they are **broadly consistent** with earlier studies that
- These results are **broadly consistent** with earlier studies that, **but** they **differ from** the work conducted by A and B.
- **Although** these result differ from the work conducted by A and B, they are **mostly consistent** with earlier studies that....



DISCUSSION

- **Limitation**



- Sample Size
- Sample Profile
- Method
- Data Collection Process
- Equipment
- Timing of Study

Most important thing is that you finish on a strong positive note

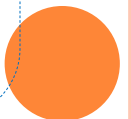


LIMITATION SECTION

- The findings in this report are subject to three major limitations. First,
- The most important limitation lies in the fact that
- The major limitation of this study is
- However, due to the small sample size, this study was under-powered to show a statistical difference...
- Although the study has successfully demonstrated that, it has certain limitations in terms of

○ **Although this study has certain limitations in terms of, it has successfully demonstrated that**

○ **Although an issue that was not addressed in this study was whether.... this was outside the scope of the research aim.**



DISCUSSION :

1. **List** all the results and prioritize important findings
2. **Explain** what these findings mean
3. **Reference** other papers (consistent/inconsistent)
4. **Limitation**



WE WILL COVER:

- The process of manuscript submission
- 4 Strategies for writing - independent clause
 - Independent clause
 - main/sub-ordinate clause
 - place of emphasis
 - semantics
- Discussion Section ; How to....
 - develop content for your discussion
 - prioritize the order of your paragraphs
 - integrate references into your discussion
 - approach study limitation
- Conclusion Section:
 - The formula for writing conclusion
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CONCLUSION

Restatement of aims


Summarizing research findings

Research contribution

Limitation (optional)

Recommendation for future work

The main goal of the current study was to determine.....The following conclusions can be drawn from the present study This is the first time that X has been used to explore However, the scope of this study was limited in terms of Further research are warranted to explore/investigate



INFLUENCE YOUR READER

*The data don't change, but the reviewers
change their view about your manuscript on
your writing*



FACTS :

John is a nice man.

John beats his dog.

- John is a nice man, but he beats his dog.



- John beats his dog, but he is a nice man.



JOHN , NICE MAN
JOHN BEATS HIS DOG

- Although John beats his dog, he is a nice man.



- Although John is a nice man, he beats his dog.



CONTRASTING/UNEQUAL IDEAS

But/though/although/however.....

- John is a nice man.
- John beats his dog.

- John is a nice man, but he beats his dog.
- John beats his dog, but he is a nice man.
- Although John is a nice man, he beats his dog.
- Although John beats his dog, he is a nice man.



WRITING TECHNIQUES TO INFLUENCE YOUR READER

- ✓ **Main clause** + sub ordinate clause
- ✓ **End of sentence**/ towards the full stop
- ✓ **Semantic**



- Although John beats his dog, he is a nice man.
- ✓ **Main clause – nice man**
- ✓ **End of sentence – nice man**



- Although John is a nice man, he beats his dog.
- ✓ **Main clause –beats his dog**
- ✓ **End of sentence –beats his dog**



- John is a nice man, but he beats his dog.
- ✓ **Main clause – nice man**
- ✓ **End of sentence – beats his dog**



- John beats his dog, but he is a nice man.
- ✓ **Main clause – beats his dog**
- ✓ **End of sentence – nice man**



SEMANTIC – WORD CHOICE

- Although John is a nice man, he ~~beats~~^{eats} his dog.
- Although John ~~beats~~^{eats} his dog, he is a nice man.
- John is a nice man, but he ~~beats~~^{eats} his dog.
- John ~~beats~~^{eats} his dog, but he is a nice man.



A PICTURE IS WORTH A THOUSAND WORDS



- Academic Writing Example



FACT:

- 30 % increase in productivity
- received 60% positive participant feedback



OPTIMISTIC VERSION 😊

- The study exhibited a remarkable 30% increase in productivity. Notably, the positive impact was consistent across diverse trial conditions, indicating the robustness of our approach.
- Participants positive feedback reflected the user-friendly nature and the immediate applicability in our new methodology.
- These results highlight the potential of our methodology, and overall the results sets promising implementations and research in this domain.



NOT OPTIMISTIC VERSION ☹️

- While there are trends suggest improvements in productivity, but the variability across different trial conditions prompts a careful consideration.
- Participant feedback, while generally positive, a more well-designed approach is necessary for further investigation before drawing definitive conclusions.
- In summary, the experimental results present a mixed conclusion, emphasizing the need for continued research and a cautious approach in applying our methodology in practical settings.



Data did not change, but the reviewers change their view based on your writing.



Influence

~~Engage your reader,~~

so they would change their mind.....

change what they think....

change what they decide about your manuscript



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Conclusion



- The 2019 Nobel prize in Medicine was awarded to William G. Kaelin Jr., Peter J. Ratcliffe and Gregg L. Semenza for discoveries about how cells sense and adapt to oxygen availability.



In reply please quote:
R04285 RH/jp

5 August 1992

Rejection Letter

Dr P J Ratcliffe
Room 420
Institute of Molecular Medicine
John Radcliffe Hospital
Oxford
OX3 9DU

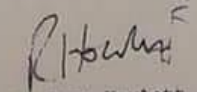
Dear Dr Ratcliffe,

I am very sorry about the long delay in reaching a decision on your manuscript, particularly as in the event we are unable to offer to publish it. As I explained on the telephone, we had great difficulty obtaining referees reports; your manuscript has, however, now been seen by two reviewers whose comments are attached.

While it is clear from the essentially favourable comments of reviewer 1 that your findings will be of interest to others in the field, reviewer 2 is not persuaded that they represent a sufficient advance in our understanding of the mechanisms of genetic response to hypoxia to justify publication in *Nature*. Given also the discrepancy mentioned by reviewer 1, we have sadly concluded, on balance, that your paper would be better placed in a more specialized journal, particularly given the competition for space.

I realize that this must be from your point of view a very disappointing outcome, particularly after such an unfortunate delay, but we do hope that you will understand our reasons for the decision, and that you will find our reviewers' comments helpful when a new version of your manuscript for resubmission elsewhere.

Yours sincerely,


Dr Rory Howlett
Associate Editor

Any
Questions

EXTRA READING:

[HTTPS://BLOG.ESSAYCRAFTER.ORG/](https://blog.essaycrafter.org/)

- 增進寫作能力: 有樣學樣的造句練習
- 加強英文基礎 - 英文單字背多少才夠?
- 增進寫作能力: 英語課本沒告訴你的事
- 增進寫作能力: 學術寫作跟你想的不一樣
- 增進寫作能力: 讓人一頭霧水中文式英文
- 寫出讓人印象深刻的作文, 來談談tone of voice
- 學英文, 別忘了這件比文法更重要的事 - 你錯的不是文法, 是 collocation !
- 英文學習資源分享
- 什麼是Coherence & Cohesion?

