# Communicating Science with Other Scientists

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# Assignment Instructions

Worth 10% of final SCIE3001 grade

1. **Peer review two student papers**.
   Use the peer-review template.
   Justify your responses.
   Provide constructive suggestions for improvement.
   Due **Wednesday 7th August**

2. **Re-write your existing assignment**
   Add to your SCIE3001 Website by **Wednesday14th August**

3. **Describe and justify the changes you made to your paper**.
   Respond to comments made by your reviewers
   Add your own changes as well
   Include references to books or websites about scientific writing.
   Due **Wednesday14th August**

**Full details on Bb**.

# Assignment – do this today!

Go to www.SCIE3001.weebly.com On the home page, click on the blog link where it says to submit your website here. Add a comment to the blog with details of your name, SCIE3001 tool kit website address and a description of the location of your report. Other students in the course will access your website to do the peer-review.

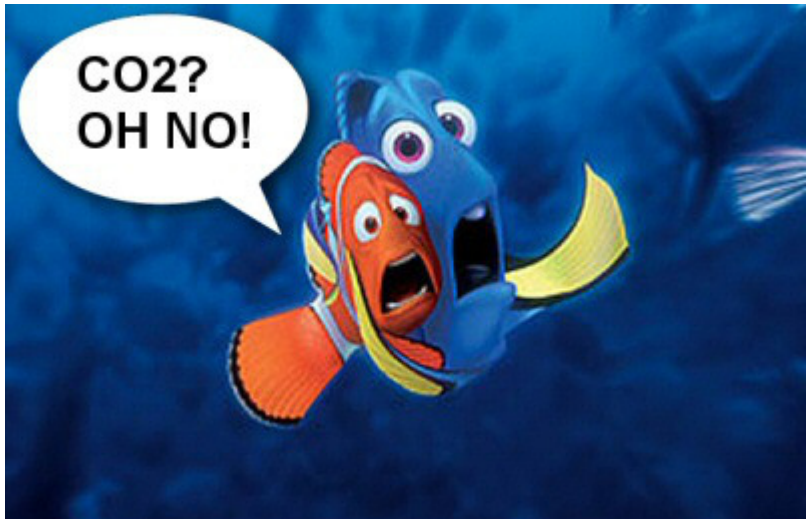
| Criterion | Grade 6<br>75 – 84% | Grade 7<br>>= 85% |
|---|---|---|
| **Peer-review of scientific paper 1**<br>20 marks | Judgements about the paper were excellent and justified with clear and thorough explanations to the author. Suggestions for improvements were clear, helpful and practical for the author. | |
| **Peer-review of scientific paper 2**<br>20 marks | Judgements about the paper were excellent and justified with clear and thorough explanations to the author. Suggestions for improvements were clear, helpful and practical for the author. | |
| **Changes made to the re-written scientific paper**<br>20 marks | Improvements were made to important aspects of the paper that...<br>- draw the intended audience's attention to the paper, **and**<br>- clarify and communicate ideas in a logical order, **and**<br>- adapted the paper to the intended audience | |
| **Justification for changes to the paper**<br>20 marks | The justifications are **insightful** and demonstrate an **excellent understanding** of the attributes and priorities for effectively communicating scientific information to other scientists.<br>There is **clear demonstration** that recommendations and strategies from the references and reviewers have been **appropriately applied** to the scientific paper. | |
| **Choice of references**<br>10 marks | The selection of references was specific to the writing style **and** discipline and included more than the reference supplied in lectures. | |
| **Word limits for all parts**<br>10 marks | Each component of the assignment was within 50 words either side of the specified word count. | |

# Yesterday... Writing peer-reviewed papers in science

- Who are scientists
- What do scientists want...

...what do they really want?

Example – impact of climate change on clown fish



# Why would other scientists be interested in YOUR paper?

- What would attract them to your paper?
- What features makes it easy for them to extract information from your paper?

Summary of our discussion...in rough hierarchical order...

- keywords
- article title from left to right (ie, the first part of the title may be more important than the latter part)
- first and last line of the abstract
- complete abstract
- last (concluding) paragraph, plus maybe the first, of the discussion
- figures and figure captions
- first and/or last sentence in each paragraph
- the whole paper

# Scientific writing
## - what have we learned?

- Structure is more important than style

- Precise, clear and brief messages are more important than detailed explanations
... But detail is still important

# Writing sequence

- Don't start with sentence 1!

1. Hypothesis
2. Sort out your structure
3. Write for readability
4. Edit last

Drafts, drafts, drafts

# Structure

- Clear thinking makes a clear structure
- Same way you design and experiment
- One idea per paragraph

Examine a scientific paper

# Readability

Three immutable characteristics...

Precise

Clear

Brief

...and in that order.

# Readability

- Clear and simple language
  - Science is complex enough, let the ideas shine
  - International language for written science is English yet up to 50% of readers have English as a second language

# Homework

1. Create a dot-point summary of a journal article from your discipline. Each dot should state the important message that is contained in each paragraph.
2. Using this, summarise in general terms what types of information is contained in each section of the paper e.g., introduction contains hypothesis and a reasons that led the authors to that hypothesis.
3. Bring this to Friday's tutorial.

You may wish to add a reference to this article and a copy of your dot-point outline to your website as an example of the structure of a scientific paper. (NB please do not upload a pdf of the published journal article – doing so will break copyright laws)