

# World Agroforestry Centre

# TRANSFORMING LIVES AND LANDSCAPES





# international-standard articles



#### Introduction



- Writing (and editing) English suitable for publication in journals of international standard is not easy to achieve.
- Not only English grammar *but also* the logical structure of articles provide plenty of challenges.
- To achieve international standard requires
  - -good research and planning
  - -clear and direct thinking and writing
  - -editing
  - -meeting the specific requirements of the particular journal.

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#### Who am I?



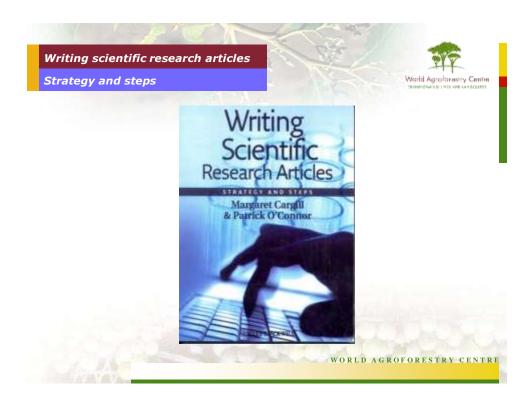
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Formerly freelance editor of

- · PhD dissertations
- scientific reports and articles (state of the environment, petroleum research, waters and rivers, sociology of immigration)
- books for Asia Research Centre (Murdoch University, Australia)

Former Chief Executive Officer of the Western Australia State Literature Centre, university lecturer in writing and journalism, community writing tutor, poet and performer





Who is your audience?



Scientists in the same field, throughout the world

Scientists in related fields, throughout the world

Policy makers

Your boss

The journal's editor/s

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#### Which journal?



**Journal Impact Factor** for a given year is the average number of times articles published in the journal in the two previous years have been cited in that year, giving a measure of the average recent use of articles in a given journal.

**Journal Immediacy Index** is calculated as the number of citations to articles in the year with respect to the number of articles published in the year, giving a measure of how rapidly the average article in a given journal is used.

**Journal Cited Half-life** is calculated as the number of publication years from the current year that account for 50% of citations received by the journal, giving a measure of the longevity of use of the average article in a given journal.

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

#### Which journal?

#### Publishing strategy



- 1. Shortlist three or four journals
- 2. Answer the following questions for each journal then rank the journals by preference
- a. Has the journal published similar work with a similar level of novelty to yours in the last three years?
- b. Does the journal's scope and the content of recent articles match the main components of your manuscript, that is, subject, methods, results? What are the main subjects, for example, plant physiology, land tenure?
- c. What is the measure of relative journal quality/impact which is most important to you and your field of research?
- d. What is the journal's time to publication?
- e. Does the journal have page charges or provide Open Access if you want it (and can you pay if payment is required)?

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

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#### Structural problems?

A refresher



# Typical journal article structure

- ABSTRACT
- •INTRODUCTION (parts 1,2,3)
- •METHODS
- ·RESULTS
- DISCUSSION

The abstract



#### **ABSTRACT**

- Some background information
- The principal activity (or purpose) of the study and its scope
- Some information about the methods used in the study
- The most important results of the study
- A statement of conclusion or recommendation

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

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Structural problems?

**The Introduction** 



# **INTRODUCTION (1)**

- Start with a broad focus
- First point should be the most interesting to your audience

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Structural problems?
The Introduction



# **INTRODUCTION (2)**

 The middle of the Introduction should logically connect the problem with the approach taken to address it

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Structural problems?
The Introduction



# **INTRODUCTION (3)**

 End with a focus that matches the Results, such as a statement of the purpose of the work presented in the paper or its main findings or activity

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

# Structural problems? The Methods



### **METHODS**

Shows how the results were obtained

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

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# Structural problems?

The Results



### **RESULTS**

'The whole structure is governed by the Results; everything in the article must relate to, and be connected with, the data and analysis presented in the Results'

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

The Discussion



#### **DISCUSSION**

- Begins with the same breadth of focus as the Results
- But ends with the same breadth as the starting point of the Introduction
- The paper should finish with addressing the broader issues you raised at the start, to show how your work fits into wider research objectives and knowledge

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and steps. London: Blackwell Publishing

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#### Structural problems?

#### **Example from a journal**





 $http://www.elsevier.com/wps/find/journal description.cws\_home/30451/authorinstructions$ 

**Subdivision:** numbered sections. Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to "the text". Any subsection may be given a brief heading. Each heading should appear on its own separate line.

**Introduction.** State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

**Material and methods.** Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

**Theory/calculation.** A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results. Results should be clear and concise.

**Discussion.** This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

**Conclusions.** The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Appendices. If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

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#### **Example from a journal**





#### Essential title page information

- *Title*. Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible. (Concise: expressing or covering much in few words; brief in form but comprehensive in scope)
- Author names and affiliations. Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author.
- Corresponding author. Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. Ensure that telephone and fax numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be kept up to date by the corresponding author.
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

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#### Structural problems?

#### **Example from a journal**

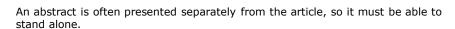
#### **Abstract**

A concise and factual abstract is required.

The abstract should state briefly the

- purpose of the research,
- •the principal results and
- ·major conclusions.





For this reason, references should be avoided but, if essential, then cite the author(s) and year(s).

Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

#### **Example from a journal**

#### References





Note: Authors are strongly encouraged to check the accuracy of each reference against its original source.

- 1. All publications cited in the text should be presented in a list of references following the text of the manuscript. The manuscript should be carefully checked to ensure that the spelling of author's names and dates are exactly the same in the text as in the reference list.
- 2. In the text refer to the author's name (without initial) and year of publication, followed if necessary by a short reference to appropriate pages. Examples: "Since Peterson (1988) has shown that..." "This is in agreement with results obtained later (Kramer,1989, pp. 12-16)".
- 3. If reference is made in the text to a publication written by more than two authors the name of the first author should be used followed by "et al.". This indication, however, should never be used in the list of references. In this list names of first author and co-authors should be mentioned.
- 4. References cited together in the text should be arranged chronologically. The list of references should be arranged alphabetically on authors' names, and chronologically per author. If an author's name in the list is also mentioned with co-authors the following order should be used: publications of the single author, arranged according to publication dates --publications of the same author with one co-author -- publications of the author with more than one co-author. Publications by the same author(s) in the same year should be listed as 1974a, 1974b, etc.

#### Structural problems?

#### **Example from a journal**





- 5. Use the following system for arranging your references, please note the proper position of the punctuation:
- a. For periodicals Stinner, D.H., Glick, I., Stinner, B.H. 1992. Forage legumes and cultural sustainability. Agric. Ecosyst. Environ. 40, 233-248.
- b. For edited symposia, special issues, etc., published in a periodical Rice, K., 1992. Theory and conceptual issues. In: Gall, G.A.E., Staton, M. (Eds.), Integrating Conservation Biology and Agricultural Production. Agriculture, Ecosystems and Environment 42, 9-26.
- c. For books Gaugh, Jr., H.G., 1992. Statistical Analysis of Regional Field Trials. Elsevier, Amsterdam, 278 pp.
- d. For multi-author books Cox, G., Lowe, P., Winter, M., 1990. The political management of the dairy sector in England and Wales. In: Marsden, T., Little, J. (Eds.), Political, Social and Economic Perspectives on the International Food System. Avebury, Aldershot, pp. 82-111.
- 6. In the case of publications in any language other than English, the original title is to be retained. However, the titles of publications in non-Roman alphabets should be transliterated, and a notation such as "(in Russian)" or "(in Greek, with English abstract)" should be added.
- 7. Work accepted for publication but not yet published should be referred to as "in press". Authors should provide evidence (such as a copy of the letter of acceptance).
- 8. References concerning unpublished data, theses, and "personal communications" should not be cited in the reference list but may be mentioned in the text.

#### **Drafting**



- 1. Start with the results
- 2. Focus on tables and figures, sorting them in order to create a 'story'
- 3. Draft some bullet points for the 'take home message'
- 4. Discuss with your co-authors the story of the paper you will write

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and WORLD AGROFORESTRY CENTR steps. London: Blackwell Publishing

#### **Drafting**

Use the questions as a prompt



1. What do my results say?

Two sentences maximum

- 1. REDD+ shows great potential for implementation in Viet Nam but faces challenges with approaches, methods, data and institutional settings.
- 2. Cross-sectoral efforts need to be made, especially in land-use planning, for effective REDD+ implementation.

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and WORLD AGROFORESTRY CENTR steps. London: Blackwell Publishing

#### **Drafting**

Use the questions as a prompt



# 2. What do the results mean in their context?

What conclusions can be drawn from the results?

Two approaches should be included in any pilot REDD+ scheme in Vietnam.

- 1. A 'landscape' approach that takes into account all land uses in a landscape
- 2. A 'co-governance' approach to the land-use planning process, with equitable involvement of all land users, including government, private companies and smallholders

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and world Agroforestry Centre steps. London: Blackwell Publishing

#### **Drafting**

Use the questions as a prompt



3. Who needs to know these results? Exactly who do you think should read the paper?

- Minister of Forestry
- Senior officials of the ministries of forestry, agriculture, environment, planning
- 3. Researchers at Indonesian and internationa
- 4. Development agency staff
- 5. NGO staff internationally and nationally

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and WORLD AGROFORESTRY CENTRE steps. London: Blackwell Publishing

#### **Drafting**

Use the questions as a prompt



# 4. Why do they need to know?

What will the results add to the field? What will researchers be missing out on if they don't read the paper?

Viet Nam pioneered a trajectory that many developing countries are expected to follow and it provides lessons on what to expect.

Cargill M, O'Connor P. 2009. Writing scientific research articles: strategy and WORLD AGROFORESTRY CENTRI steps. London: Blackwell Publishing

#### Sentence-level problems?

**Passive and active voices** 



#### Passive voice

Passive forms of verbs emphasise the action, and remove emphasis from the doer of the action, but they often use more words than in the active form

OBJECT PASSIVE VERB FORM

**Passive**: The results are considered to be important by the researchers.

**SUBJECT** 

Word count: 10

SUBJECT ACTIVE VERB FORM

**Active**: We consider the results

important. OBJEC

Word count: 5





### Very long subject with short passive verb

Wheat and barley, collected from the Virginia field site, as well as sorghum and millet, collected at Loxton, were used.

Four cereals were used: wheat and barley, collected from the Virginia field site; and sorghum and millet, collected at Loxton.

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#### Sentence-level problems?

**Passive and active voices** 



#### How to choose?

#### Is it important who did it?

The researchers collected data from all sites weekly. Word count: 8

Data were collected from all sites weekly. Word count: 7

#### Does it sound repetitive?

We collected the data. We analysed the data. We published the results.

Data were collected. After analysis, we published the results.

#### Single-author paper

Space considerations

Past, present, future?



#### Tense

Reports and articles are written in the past tense because you are reporting on matters that occurred in the past.

You cannot claim that the situation in the field is the same at the time of writing as it was when you did the research.

Smallholders are located in Dolok Merangin and Aek Tarum, which are the villages nearest to each plantation.

Smallholders were located in Dolok Merangin and Aek Tarum, which were the villages nearest to each plantation.

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# Sentence-level problems?





An article is a type of determiner that precedes a noun.

Basically, there are two types of articles in English:

the **definite** (the); and

the **indefinite** (a/an).

http://grammar.about.com/od/ab/g/articleterm.htm



#### **Articles**

#### **Indefinite articles**

A and an are the indefinite articles.

They refer to something not specifically known to the person you are communicating with.

'A' and 'an' are used before nouns that introduce something or someone we have not mentioned before.

#### Example

I ate **an** apple this morning. I bought **a** pet for my daughter.

We use a when the noun we are referring to begins with a consonant (b, c, d, f, g, h, j, k, I, m, n, p, q, r, s, t, v, w, x, y or z), for example, `a city' and `a factory'.

We use **an** when the noun we are referring to begins with a vowel (a, e, i, o, u)

#### Pronunciation changes this rule

If the next word begins with a consonant sound when we say it, for example, `university' then we use `a'.

If the next word begins with a vowel sound when we say it, for example 'hour' then we use 'an'.

**Example:** We say 'university' with a 'y' sound at the beginning as though it were spelt 'you-niversity'. So, 'a university' is correct. We say 'hour' with a silent 'h' as though it were spelt 'our'. So, 'an hour' is correct.

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http://www.englishlanguageguide.com/english/grammar/article.asp

#### Sentence-level problems?





#### Definite article: the

We use **the** when we know that the listener knows or can work out which particular person or thing we are talking about.

**Example: The** dog (that specific dog). **The** apple (that specific apple)

We should also use **the** when we have already mentioned the thing we are talking about.

**Example:** She's got two children: a girl and a boy. **The** girl's eight and **the** boy's fourteen.

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http://www.englishlanguageguide.com/english/grammar/article.asp

#### **Prepositions**



A preposition is a word that is used to indicate different relations, such as place, time, method, manner, reason and purpose, possession, direction and motion.

It is placed before a noun or a pronoun.

The most common examples of prepositions in grammar are *on, in, at, by, to, beside* etc.

Prepositions are often used to indicate location in the physical world.

http://www.buzzle.com/articles/examples-of-prepositions.html

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# Sentence-level problems?

#### **Prepositions**



Preposition	Examples
About	I will tell you a story <i>about</i> a lion.
Above	The plane flies above the clouds.
Across	They walked across the field.
After	After lunch, I shall complete the remaining task.
Against	I helped her, going against the recommendations of my advisers.
Along	All along the way, she did not speak a word.
Among	The profit was shared among the shareholders.
Around	Owing to the flood, we turned around to return home.
At	The country is at war with its neighbour.
Before	She had decided to quit before Christmas, but changed her plan.
Behind	The mosque is located <i>behind</i> the supermarket.
Below	The temperature dipped <b>below</b> freezing.
Beneath	The water is <i>beneath</i> the house.

http://www.buzzle.com/articles/examples-of-prepositions.html

**Wordiness (redundancies)** 



#### Wordiness

According to our analysis, major constraints faced by smallholders who may be attracted by the possible returns of oil palm systems are the lack of capital for investment, price uncertainty and low intensity of management and specific knowhow about the crop. (41 words)

Smallholders who want to plant oil palm to improve their income often lack investment capital and knowledge of the crop, use low-intensity management and face uncertain prices. (27 words)

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# Sentence-level problems? Plural and singular



#### **Plural**

About 50% buffer area of Sesaot protected forest are managed by community surrounding the forest which divided into two farmer groups of Wana Dharma and Wana Lestari.

About 50% of the buffer area of Sesaot protected forest is managed by communities surrounding the forest,

specifically, the two farmers' groups of Wana Dharma and Wana Lestari.

Acronyms (too many = meaningless)



CIDA, IFAD, GIZ BMZ, NORAD and FAO run a number of projects and programs in collaboration with GoI agencies, such as Kemenhut and Bappenas: READ, Green PHMP, EGSL, SUSCLAM, RCL, M3 Multi Media Machine, CTI, CD, KDP/PPK. Some of these address CC, particularly in regards to C stock, NAMAs and LAAMAs and LULUCF. Correspondingly, in the Philippines, the MKRFCD project with PASu and other LGUs progresses some of these concerns. Also, GoV is planning with ACIAR a 5YP with VAF as the core focus.

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#### Sentence-level problems?

Acronyms (all spelt out = too many words)



The Canadian International Development Agency, International Fund for Agricultural Development, German Agency for International Cooperation, Norwegian Agency for Development Cooperation and the United Nations Food and Agriculture Organization run a number of projects and programs in collaboration with Indonesian Government agencies, such as the Ministry of Forestry and the National Planning Agency: Rural Empowerment and Agricultural Development Program in Central Sulawesi, Community Development Program Nasional Pemberdayaan Masyarakat (National Program for Community Empowerment in Rural Areas), Environmental Governance and Sustainable Livelihoods, Tomini Bay Sustainable Coastal Livelihoods and Management, Restoring Coastal Livelihoods, Strengthening the Outreach and Education Network for Natural Resource Governance, Coral Triangle Initiative, Japan International Cooperation Agency Sulawesi Capacity Building, Kecamatan Development Program (known locally as KDP, or PPK (Program Pengembangan Kecamatan). Some of these address climate change, particularly in regards to carbon stock, local and national adaptation and mitigation action and land use, land-use change and forestry. Correspondingly, in the Philippines, the Mt Kitanglad Range Forest Carbon Project with the Protected Areas Supervisor's office and other local government units progresses some of these concerns. Also, the Government of Vietnam is planning with the Australian Centre for International Agricultural Research a five-year project with vegetable agroforestry as the core focus.

Acronyms (concise and readable)



In Sulawesi, the Canadian, German, Japanese and Norwegian development agencies and two United Nations bodies run a number of projects in collaboration with the Government of Indonesia.

#### These include

- Rural Empowerment and Agricultural Development Program
- · National Program for Community Empowerment in Rural Areas
- Environmental Governance and Sustainable Livelihoods
- Tomini Bay Sustainable Coastal Livelihoods and Management
- · Restoring Coastal Livelihoods
- · Strengthening the Outreach and Education Network for Natural Resource Governance
- Coral Triangle Initiative
- · Sulawesi Capacity Building
- Kecamatan Development Program

Some of these address climate change, particularly carbon stock management, local and national adaptation and mitigation actions and land use, land-use change and forestry issues.

Correspondingly, in the Philippines, the Mt Kitanglad Range Forest Carbon Project with the Protected Areas Supervisor's office and other local government units deals with some of these matters.

Also, the Government of Vietnam is planning with the Australian Centre for International Agricultural Research a five-year project focusing on vegetables mixed with agroforestry.

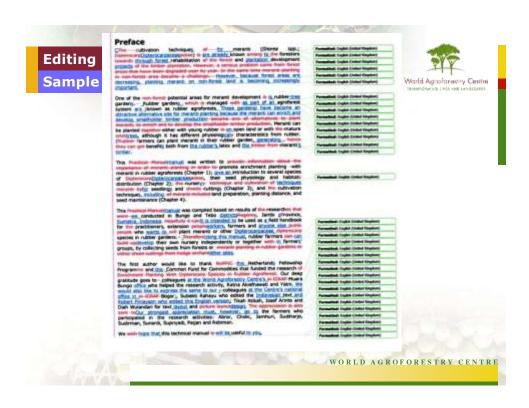
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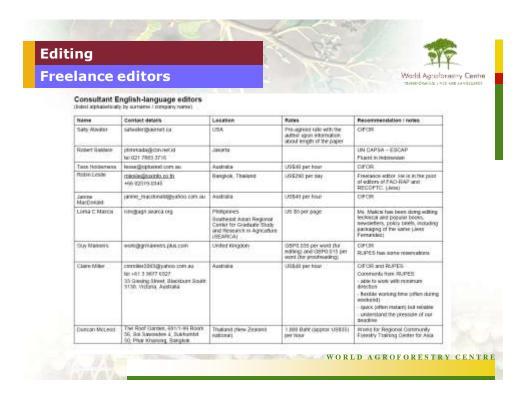
#### **Editing**

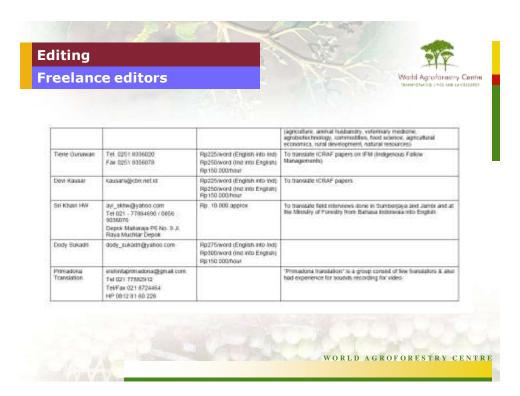


# All writers need editors!

- 1. Write, rewrite, rewrite (months?)
- 2. Substantive or structural edit (peers review the content and edit the structure) (weeks?)
- 3. Copy editing (rough guide: 5000 words = 1 day)
- 4. Proofreading (after layout) (similar to copy editing)







#### **Doing it**



- **Coordination of co-authors** (communication arrangements, agreement on the story, allocation of sections, agreed writing style, length)
- **Deadlines** (allowing time for internal review, copyediting and proofreading (if an internal publication))
- Writing workshops and groups
- Journal clubs (read journals and discuss)

