

Academic Phrasebank

Use more → use more sentence → main idea @ beginning
 & periodic " → " " " end

Writing in Academic Style

Academic English writing:

1. has a clear structure. It is evident to the reader from the introduction that the writer has organised his or her thoughts and knows what he or she wants to communicate;
2. has fewer clauses per sentence than spoken English, but more words per phrase;
3. has more nouns (often abstract ones) than spoken English and fewer verbs;
4. makes less use of coordination (joining clauses with *and* or *but*) and greater use of subordination (joining clauses with words such as *while*, *because*, *subsequently*) than spoken English;
5. almost always uses the third person (he, she, it, they), rarely uses first person (I, we) and never uses second person (you);
6. makes limited use of personal pronouns for cohesion (it, them), preferring other ways of achieving cohesion e.g. summary words used with *this* or *these*; repetition of key words/themes [...]
7. avoids colloquial vocabulary e.g. There are a lot of... → use obtain/yield/receive/perform
8. avoids contractions (*do not* is used rather than *don't*);
9. avoids words that have emotional or attitudinal connotations such as This has had *enormous* impact... instead of The *significant* influence of this change may be attributed to...
10. avoids phrasal verbs, e.g. *look into*, preferring single word often polysyllabic verbs, e.g. *investigate*; and
11. uses linguistic "hedges" (probably, in most cases, seems, might be) to qualify generalisations.

From: <http://www.docs.fce.unsw.edu.au/fce/EDU/eduwritingacadstyle.pdf> (modified; 30.9.2010)

→ usually (not v. long → ≤ 2/3rd page)

* 1 paragraph = 1 idea

↓

- topic: key words

- main statement: 1 complete sentence

↓

→ summary

→ sentence outline

} ⇒ generate text

Book

"Keys for writers"

* Short parag. ⇒ incomplete / belongs to another paragraph

Comma exercise (and some other problems)

- 3 In order to be adopted within corporate environment, Semantic Web applications must provide solutions to perceived problems or methods to exploit perceived opportunities. Mere innovation is not enough.
- 6 From the corporate perspective, the introduction of Semantic Web applications must result in tangible gains ~~like~~ expansion of business, a wider set of business opportunities, or cost reduction of current business processes. This can be realized by providing a superior level of service. Moreover, in order to gain acceptance within enterprises, Semantic Web applications should quickly evolve into something perceived as indispensable conferring benefits on their users without extra costs or steep learning curves. Although there are evident opportunities for knowledge-based tasks or enterprises to improve their performance once information sources are integrated and more intelligent information processing is automated, a cost-benefit analysis is, in any case, essential.
- 15

<ftp://ftp.inf.fu-berlin.de/pub/reports/tr-b-08-09.pdf> p.6

Note (words with 2 meanings) → try to avoid using them as logical connectors

	Logical	temporal
As } → (use)		✓
Since } because		✓
while } - whereas		✓
	- although	
	- though	

→ use their alternatives

E.g.

Since he got a new job (S) he seems to be much happier.

(N-S.)

The Abstract

The abstract of your article permits potential readers to get a quick overview of your study and to decide whether they wish to read the article itself.

Titles and abstracts are also indexed and compiled in reference works and computerized databases. Therefore, title and abstract should accurately reflect the content of the article and include key words that will ensure their retrieval from a database.

Title: It should be fully explanatory when standing alone and identify the theoretical issues or the variables under investigation. You will not be able to mention all the features of your study in the title (or even in the abstract), so you must decide which are most important.

Title: 10 – 12 words; **Abstract:** 120/200/250 words (depends on the journal)

The Abstract follows the structure:

problem statement: what problem are you going to solve?

motivation / relevance: why is it important to solve this problem?

approach/method: how did you go about solving the problem?

results: what is your solution to the problem?

conclusions: what are the implications of your solution?

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Writing a good abstract

A good abstract contains the elements of a complete paper. Generally, citations are not used. Writing an abstract requires a lot of concentration - it's the most difficult part of most papers or theses to write, because you must economize your words and go straight to the heart of the matter.

- * The cardinal rule is: **BE CONCISE**. Short declarative sentences work best. Wordy abstracts should be avoided: every word and phrase should convey some central meaning. Avoid generalities and vagueness. Provide information-dense results. You can almost always make any abstract better by going back through it and carefully editing out the fluff.

In some cases (but not all), it may be appropriate to offer some indication of where the work is going.

Adapted from:

http://academic.reed.edu/writing/student_resources.html

http://academic.reed.edu/writing/tutor_resources.html

http://academic.reed.edu/writing/faculty_resources.html

see also: American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.) Washington, DC

The Introduction

The introduction invites readers to join the author on a journey of discovery. Readers decide very quickly whether they should spend their valuable time travelling with the author, so they have to be convinced that there is something of personal value to them in the publication.

The introduction has three important functions:

1. It creates a common basis of understanding between reader and author

"The investigation of environmental threats has improved general understanding of many chemical processes, such as the formation of acid rain and the build up of carbon dioxide, thus making it possible to understand better their eventual effects on the biosphere."

2. It destabilizes the common ground by pointing to an unsolved problem. The problem may be new to the reader or it may be an unsolved problem in the field

"But recently the chemical processes that have been thinning the ozone layer have been found to be less well understood than once thought. Labelling hydrofluorocarbons as the chief cause now appears incorrect."

3. It promises a solution that is the main point (claim) of the paper

"In this report, we describe a hitherto unexpected chemical bonding between XY ..."

Remember:

A good introduction:

- ✓ addresses a broad readership
- ✓ is complete and independent of the paper's title or subsequent contents
- ✓ avoids telling readers the obvious (*"The thinning of the ozone layer is a major problem today."*)
- ✓ activates readers' interest in your approach, point of view, results, ...
- ✓ motivates readers to continue reading ("hook")

© based on material from:

Booth, Wayne C.; Colomb, Gregory G. and Williams, Joseph M.: The Craft of Research. Chicago and London, 2003, p. 109-160 (modified)
Raimes, Ann; Keys for Writers, A Brief Handbook, Boston, 1999, p. 29f.

THE INTRODUCTION

1	<p>ESTABLISH THE IMPORTANCE OF YOUR FIELD</p> <p><i>PROVIDE BACKGROUND FACTS/INFORMATION (research)</i></p> <p>DEFINE TERMINOLOGY (e.g. in title, key words)</p> <p>PRESENT THE PROBLEM AREA/CURRENT RESEARCH FOCUS</p>
2	<p>PREVIOUS AND/OR CURRENT RESEARCH AND CONTRIBUTIONS</p> <p>(LITERATURE REVIEW) → in computer science articles → usually a separate section</p>
3	<p>LOCATE A GAP IN THE RESEARCH</p> <p>DESCRIBE THE PROBLEM YOU WILL ADDRESS</p> <p><i>PRESENT A PREDICTION TO BE TESTED</i></p>
4	<p>MENTION THE MAIN RESULT/DESCRIBE THE PRESENT PAPER</p>

THE DISCUSSION

1	<p><i>REVISIT PREVIOUS SECTIONS</i></p> <p>SUMMARIZE/REVISIT GENERAL OR KEY RESULTS</p>
2	<p>MAP PRESENT RESULTS TO PREVIOUS RESEARCH</p>
3	<p>DESCRIBE ACHIEVEMENT/CONTRIBUTION MADE BY YOUR RESEARCH</p> <p><i>DEVELOP THE IMPLICATIONS</i></p>
4	<p>LIMITATIONS OF YOUR RESEARCH/INTERPRETATIONS</p> <p>OUTLINE CURRENT AND FUTURE WORK</p> <p><i>APPLICATIONS</i></p>

TEXT IN ITALICS: optional sections; refer to publisher's guidelines

From: Hilary Glasman-Deal: *Science Research Writing for Non-Native Speakers of English*, Imperial College Press, 2010; p. 24, 179-180 (modified)

The Methods Section

usually use more passive form (because subject is known)

The Methods section must satisfy a basic requirement of scientific research by making the research process transparent and allowing others to repeat the work and obtain the same results.

Irrespective of the research field, the Methods section should answer the following questions:

- How did you reach your conclusions?
- Which data/sources did you use?
- How/Where were the data obtained? How reliable are they? What are possible sources of error? Can the original (raw) data be accessed?
- How did you evaluate the data?
- Are your readers familiar with the methods you used?
- Why did you use these methods and not others? (Methodology; not always relevant)

Remember:

A good Methods section:

- ✓ describes all the procedures accurately and completely
- ✓ uses specialist terminology consistently
- ✓ is understandable for a specialist readership

© Based on material from:

Swales, John M. und Feak, Christine: Academic Writing for Graduate Students. Essential Tasks and Skills, 1994, Ann Arbor: The University Press of Michigan, p. 159-167

The Results Section

*Your results are your reason for publishing—they drive your paper.
The readership is usually narrow and is often made up of specialists
who read very critically.
Many journals combine the results and the discussion sections.*

It is important to:

1. Present only the most significant results that are directly related to your research question.

Many journals offer online repositories for the “less spectacular” results which nevertheless may be of interest to a restricted circle of readers.

2. Use high quality graphical representations.

Readers expect to see results summarized as tables, graphs, diagrams, etc. Don't overload graphics with “effects” that do not contribute to understanding the significance of what you want to say. Label graphics accurately and correctly.

- ✓ 3. Tell your readers what you want them to notice and why it is important.

Describe the results as specifically as possible with exact numbers, descriptions, etc. Readers should be able to extract the significant trends from the graphics and then find further details in the text. Avoid direct repetition of information about graphics in the text.

Remember:

A good Results section:

- ✓ addresses a specialist readership
- ✓ reduces complexity as far as possible without sacrificing precision and accuracy
- ✓ focuses on the most important aspects of your work

© based on material from:

M. Cargill & P. O'Connor: Writing Scientific Research Articles: Strategies and Steps. Chichester 2009, p. 21-33. Hilary Glasman-Deal: Science Research Writing for Non-Native Speakers of English. London 2010 p. 91-153

The final Discussion

*The Discussion section establishes the author's reputation as a scientist.
Readers have to be convinced by the strength of the arguments!
Many readers read this section first.*

The discussion must:

1. Clearly state the main point of your work

- Repeat the answer to the research question first presented at the end of the Introduction.

"The chemical bond between X and Y... influences the ozone layer twice as strongly as the emission of carbon dioxide in that it ..."

2. Discuss the results in the light of the current research situation

- Which new contribution/s do/does the work make to the field? Have you closed the knowledge gap? (Maybe: which practical consequences does the work have?)

"These results completely change common assumptions about the formation of the ozone hole ...

The results make it necessary to develop new approaches about how to protect the environment ..."

3. Point to new research questions/directions

- What still needs to be done to solve the problem completely? Which data need to be gathered to further validate the results?

"It still is unclear how the effects of XY on the ozone layer can be reduced, because ..."

Remember:

A good Discussion should

- ✓ "mirror" the structure of the introduction
- ✓ be understandable for a broad readership
- ✓ critically evaluate the strengths/weaknesses of your work

© Based on material from:

Booth, Wayne C.; Colomb, Gregory G. and Williams, Joseph M.: The Craft of Research. Chicago and London, 2003, p. 109-160.

Raimes, Ann; Keys for Writers, A Brief Handbook, Boston, 1999, p. 29f.

Tenses

Simple present

- describes general truth (still valid)
- describes previous work

Simple past

- describes actions completed in the past
- describes [your] current work

◦ Abstract } mostly simple present (may be ended with some sentences about what you did?)
◦ Intr.

◦ Methods } mostly simple past
◦ Results }

◦ Discussion: mixture

* fig x shows that there was a ---

In this section, we discuss some details of our measurement setup and then ^{present} we show and comment on the results. The objective of these measurements is twofold; first, to better

3 understand the functionality of eMule's queue management system (and thus, its incentive system), and second, to validate the accuracy of our theoretical analysis.

6 For our measurements we have instrumented version 2.2.6 of aMule [ref] to log all the events related to the aMule's incentive system, such as, ^{including} entrance ^{entering} to the the waiting queue, leaving the waiting queue, holding a downloading slot, ^{and} releasing that slot (either because the download ^{is} completed or as a result of preemption). Additionally, the instrumented code logs a set of debug messages, and reports changes ^{on} the incentive-related numerical values, such as bytes

12 uploaded to other peers, bytes downloaded from other peers, as well as computed credits and scores (priorities) of other peers. As ~~we~~ mentioned in section II, credit and priority associated to a peer are never stored on that peer, but on each of the other peers ^{with} which it has already

15 interacted ^{with}. Therefore, we stress ^{on} the fact that all measurement results presented herein ^{are} representing only the results from a serving node's perspective¹. However, ^{if} there ^{was} a ^{need} to verify the correct functionality of our passive monitoring nodes, as well as to understand the behavior of the nodes under certain circumstances. To fulfill ^{this} requirement⁵, even with the

18 absence of global or shared knowledge of incentive parameters, we have conducted a set of test experiments ^{at} in the university campus of the Technical University of Darmstadt¹. Two instrumented clients ^{were} connected to the aMule networks (e2DK and KAD), and they interacted

21 both mutually as well as with some other clients via several search, download, and upload activities.

24 Measurements aiming ^{at} validating the accuracy of our analytical analysis included several experiments conducted in different locations with ^{a variety of} different setup settings. ^{various} Common configurations for all measurements are as follows. First, the measurements represent only a preemptive queuing system. This is due to the fact that the queuing system of aMule and other eMule-like clients support only the preemptive scheme. Second, in order to gather representative data and comply to theoretical part, the system was required to work in ^a heavy traffic regime; that is, the arrival rate of the clients on the waiting queue is equal or very close to the rate at which those clients are served.

33 1 Such absence of global or shared knowledge of incentive-related parameters facilitates cheating the incentive system. Improving the aMule's incentive scheme by considering some identified problems is part of our plan ^{for} future work.

Example

Milton wrote _____ moving poem about blindness.

1. Is the noun a proper noun or a common noun?

COMMON

Go to question 2.

2. Does the common noun refer to a specific person, place, thing or idea known to both writer and readers as unique, or is the reference nonspecific?

NONSPECIFIC (The reference is not to one specific poem. There is more than one "moving poem" in literature.)

Go to question 3.

3. Is the noun countable or uncountable?

COUNTABLE (We can say *one poem*, *two poems*.) **Go to question 4.**

4. Is the noun plural or singular?

SINGULAR (The first letter in the noun phrase *moving poem* is *m*, a consonant sound.)

Use *a* as the article.

Milton wrote *a* moving poem about blindness.

From: Ann Raimes with Maria Jerskey *The Open Handbook*, Houghton Mifflin, 2007, p. 334

1. PROPER NOUN OR COMMON NOUN?

↓
Singular: no article
Plural: *the*

2. SPECIFIC OR NONSPECIFIC REFERENCE?

↓
the

3. UNCOUNTABLE OR COUNTABLE NOUN?

↓
no article OR
some, much
a little, etc.

4. PLURAL OR SINGULAR?

↓
no article OR
some, many,
a few, etc.

↓
a/an

HEDGING

= building a protective fence (hedge = Hecke) around statements or arguments

Hedging vocabulary

nouns

- idea
- speculation
- possibility

adverbs

- probably
- possibly
- apparently
- seemingly
- presumably

verbs

- appear
- suggest
- seem
- may be
- postulate
- speculate

If your texts contain a lot of these words, you might want to check whether you are being unnecessarily careful.

Hedging is legitimate, but should be used only when absolutely necessary.

A triple hedge (AVOID!!):

It is **perhaps possible** that the algorithm **might** fail on unusual input.

More examples, and an exercise, are available at
<http://www.uefap.com/writing/feature/hedge.htm> (8.3.2010)

How to construct a *Nature* summary paragraph for a "Letter"

Please follow the numbered steps below:

1. One or two sentences providing a basic introduction to the field, comprehensible to a scientist in any discipline.
2. Two to three sentences of more detailed background, comprehensible to scientists in related disciplines.
3. One sentence clearly stating the general problem being addressed by this particular study.
4. One sentence summarising the main result (with the words "here we show" or their equivalent).
5. Two or three sentences explaining what the main result reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.
6. One or two sentences to put the results into a more general context.
7. Two or three sentences to provide a broader perspective, readily comprehensible to a scientist in any discipline, may be included in the first paragraph if the editor considers that the accessibility of the paper is significantly enhanced by their inclusion. Under these circumstances, the length of the paragraph can be up to 300 words.

www.nature.com/nature/authors/gta (26.7.2010)

Nature guide to authors: First paragraphs for Letters Information sheets 3d

Instructions

1. include step 7
2. write legibly (please ☺!)
3. leave every second line free (double space)
4. leave a wide margin
5. final word count: 200 – 300 (max.)
6. please include a (preliminary) title.

Please note:

- You might want to use the writing process, either for each individual step, or for the text as a whole, or for both.
- For the purpose of this exercise, you may have to create the result you want/expect.
- The first draft will (probably) be longer than the final one!
- Make every word count!