

Writing scientific articles in English for publication

Session 1

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Session 1

1 Use correct word order

2 Avoid long sentences

Basic
writing skills

3 Structure paragraphs and sentences

4 Be concise and precise

Points mean prizes!

1 point

2 points

4 points



1 Use correct word order



Basic word order in English

The researcher sent her manuscript to the journal.



SUBJECT



VERB



DIRECT OBJECT



INDIRECT OBJECT

Last week, the researcher sent her manuscript
to the journal for the second time.



ADVERB



PREPOSITIONAL PHRASE

Most relevant subject



- A. **Particularly interesting for researchers in public health** is the new way, named X, for measuring levels of addiction.
- B. **X** is a new way to calculate levels of addiction. It is particularly interesting for researchers in public health.
- C. **Public health** now has a new way, named X, which is particularly interesting for researchers in public health, for measuring levels of addiction.

Subject



- A. **Projected prevalence rates after 10, 30, and 50 years following an intervention assumed as initiated in 1998** are shown in Table 2.
- B. **Table 2** shows projected prevalence rates after 10, 30, and 50 years following an intervention assumed as initiated in 1998.

TABLE 2—Potential Effects on Prevalence of Interventions to Delay Onset of Alzheimer’s Disease

Relative Risk of Intervention	Mean Delay, y	Alzheimer’s Disease Prevalence (Millions)		
		2007	2027	2047
1.00	0	2.89	4.74	8.64
0.95	0.5	2.79	4.52	8.26
0.90	1.0	2.68	4.31	7.87
0.75	2.0	2.32	3.64	6.70
0.50	5.0	1.74	2.49	4.60

it as subject?



- A. The new version must be used.
- B. It is mandatory to use the new version

- A. It is possible to do this with the new system.
- B. This can be done with the new system.

it - reference



- A. Although **it** is a major cause of blindness, a uniform definition of **glaucoma** is needed to assess **its** public health impact.

- B. Although **glaucoma** is a major cause of blindness, a uniform definition of **the disease** is needed to assess **its** public health impact.

Subject verb

- A. An important factor in improving the quality of clinical studies **is clarity in defining these infections.**
- B. **Clarity in defining these infections is** an important factor in improving the quality of clinical studies.



2 points

- A. **Time and cost are** considerations that influence the choice of instruments.
- B. Considerations that influence the choice of instruments **are issues relating to time and cost.**

Subject verb

- A. **People** of high intelligence, an ability to solve problems, a passion for computers, and good communication skills, **are** generally **employed** by companies.
- B. **Companies** generally **employ** people of high intelligence, an ability to solve problems, a passion for computers, and good communication skills.



1 point

Subject verb

2 points

A. **The result**, after the calculation has been made, **can be used** to determine Y.

B. After the calculation has been made, **the result can be used** to determine Y.

A. **This method**, when it is possible, **is** useful because it allows...

B. When this method is possible, **it is** useful because it allows...

verb direct object



4 points

- A. We can **associate** **a high cost** with these values.
- B. We can **associate** with these values **a high cost**.
- C. We can **associate** **several factors** with these values: **a high cost, more training, and significantly more work**.
- D. **The following** **can be associated** with these values:
- **a high cost,**
 - **more training,**
 - **significantly more work.**

direct object indirect object

A. This operation is recommended **only** for some cases.

B. **Only for some cases** this operation is recommended.

A. One can find **instances of this disease in the** above references.

B. In the above **references** one can find **instances of this disease**.



2 points

Adverbs: frequency

usually

These neurons do not **exhibit** biochemical changes.

always

Late complication may not **have** been recorded.

often

Patients **are/were** confused.



These neurons do not **usually exhibit** biochemical changes.

Late complication may not **always have** been recorded.

Patients **are/were often** confused.

Adverbs: certainty, manner, time



5 points

probably A trial **will not give** a simple answer.

probably A trial **won't give** a simple answer. (**spoken**)

steadily Frequency **rises** with the number of transfusions.

considerably Levels of mortality **vary** among countries.

in the last few years Significant advances **have been made**

A trial **will probably not give** a simple answer.

A trial **probably won't give** a simple answer. (**spoken**)

Frequency **rises steadily** with the number of transfusions.

Levels of mortality **vary considerably** among countries.

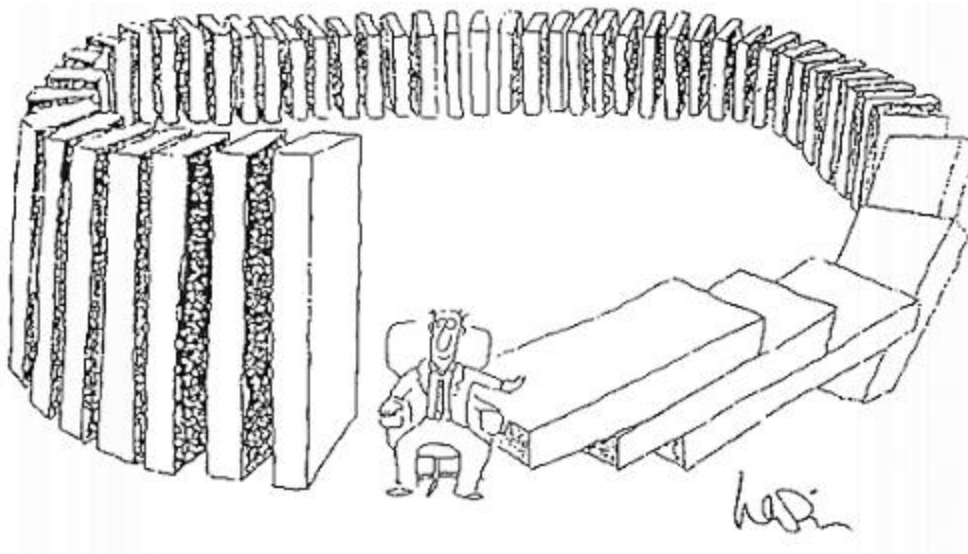
Significant advances **have been made in the last few years.**

Adverbs: consequence

Therefore, mutations give a higher chance of ...

Dysfunction **may thus be** a major component of ...

Hence, patients with a relatively high number of...



Adverbs: addition

Moreover, obesity and insulin resistance have been found to...

In addition, the improvements noted in our study were unrelated to gender ...

Furthermore, these results suggest that...



Adverbs: contrast

However, these authors are primarily interested not in...

Of greatest interest, **however**, was that levels in patients...

Nevertheless, results appear to support the concept that...

In contrast, the analysis of older patients revealed...

Capillaries are small, **whereas/while** cancer cells are quite large.

Adverbs: enumerate points

Firstly, malarial disease may be affected by other factors...

Secondly, hyperglycaemia may be involved...

Finally, higher levels predict subsequent development of ...

Adverbs: Attract attention, express emotion

Notably, this is the first study to investigate the effectiveness of..

Surprisingly, few of the patients were aware of their disorder...

Interestingly, virtually all men with the syndrome were..

Regrettably, many studies have failed to take account of...

Adverbs: specify

Specifically, patients treated with this therapy showed...

In particular, patients who discontinued treatment were...



Exercise A: Choose the best word order to help the reader

Answers

- 1) **B** Since 2012, these factors have been considered of primary importance.
- 2) **A** The following diagram describes the process of patient care:
- 3) **B** The findings highlighted a lack of this kind of motor function in patients with severe disabilities.
- 4) **B** Finally, the reliability of the system was confirmed by the results gained during the last competition, in which Karaganda State Medical University participated for the first time.



4 points

Exercise B: avoiding impersonal *it*



Answers

1. Carrying out these tests is easy. / These tests are easy to carry out.
2. Salaries may increase.
3. The samples must be cleaned.
4. All future operations will probably be required to follow the new safety procedures.

2 Avoiding long sentences

**A proverb is a short sentence
based on long experience.**



Miguel de
Cervantes
1547-1616

Points to bear in mind

- **The reader wants to**
 - read a sentence once
 - concentrate normally
 - understand the logic easily
- **Sentence length**
 - 15-20 words (maximum 25 words)

Why long sentences occur

- **Too many connectors** – and moreover, etc.
- **Too many lists** – components, reasons, etc.
- **Too much punctuation** - commas (,) semi-colons (;), etc.

Don't overuse 'and'

The treatments are very often expensive and technically difficult. *Their* effectiveness very much depends on the chemical and physical characteristics of the substances used for impregnation. *Also important* is their ability to ...

On the other hand – for contrast

The levels of cadmium in Site C were comparable to the levels found in Sites A and B in the previous years. *On the other hand*, the levels for copper were much lower in Site C with respect to the values found in the previous sampling campaigns in 2008 and 2010.

However

The levels of cadmium in Site C were comparable to the levels found in Sites A and B in the previous years. *However*, this was not the case for the levels found in the south-east part of Site C.

Don't overuse 'which'

English has now become the world's international language and is studied by more than a billion people in various parts of the world. This has given rise to an industry of English language textbooks and teachers. Today, English is generally used in scientific papers.

Commas

Let's eat Grandma!
Let's eat, Grandma!

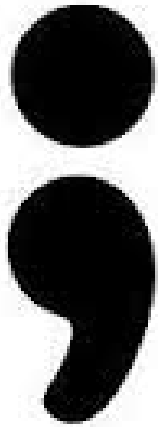


**PUNCTUATION
SAVES LIVES**

As a preliminary study, in an attempt to establish a relationship between document length and level of bureaucracy, we analyzed the length of 50 European Union documents, written in seven of the official languages of the EU, to confirm whether documents, such as reports regarding legislative and administrative issues, vary substantially in

In our preliminary study we analyzed translations from English into seven of the official languages of the European Union. We chose 50 documents, mostly regarding legislative and administrative issues. We

Semi-colons



**I'm not winking;
I'm punctuating.**

- **Connect ideas**

It's a good idea; let's hope it works.

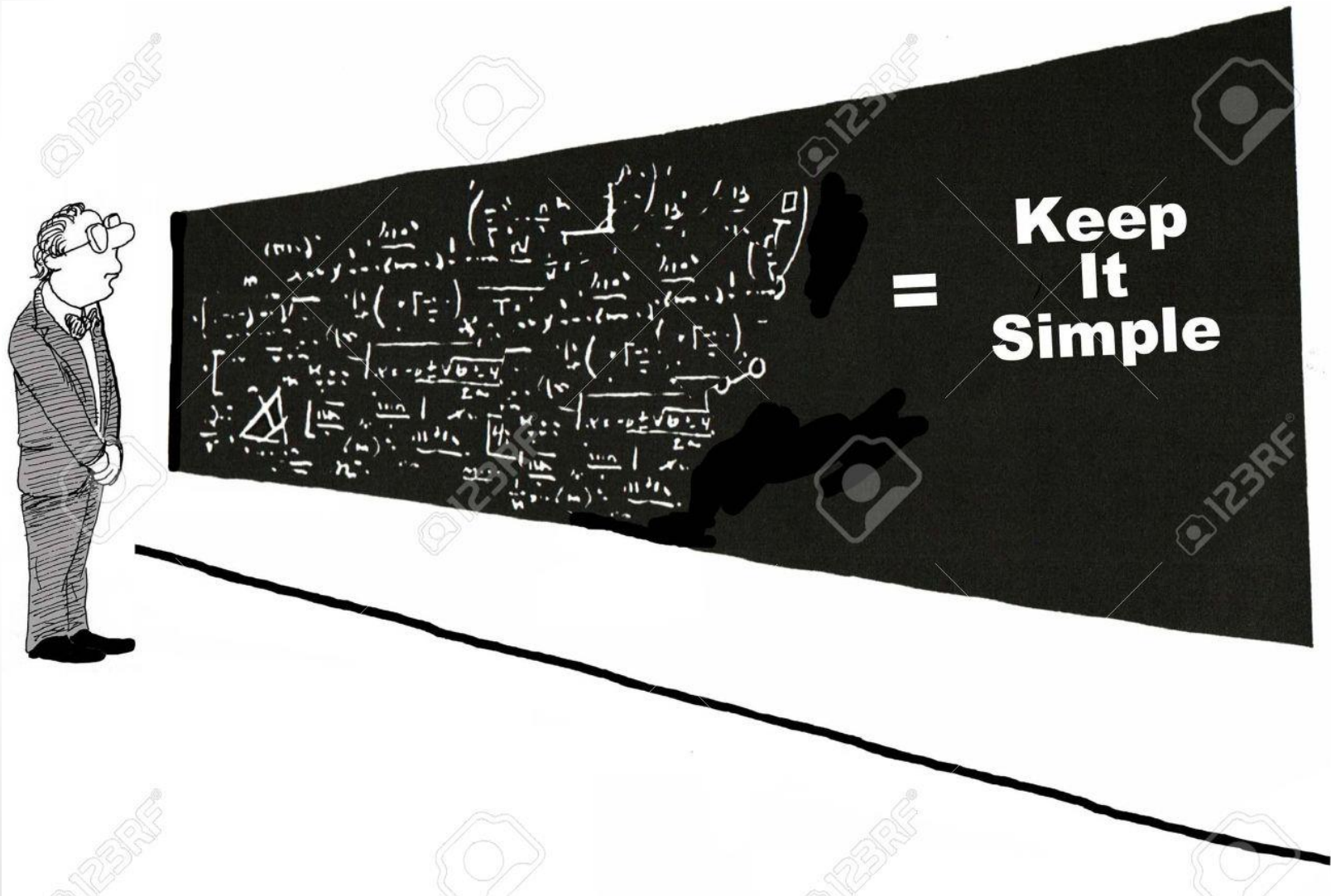
- **List with long items**

You can use the gym if you respect other users; pay your subscription regularly; use...

Exercise C: writing short sentences

Write a few sentences about your professional interests.

3 Structuring paragraphs and sentences



Think about the reader

- **Your style needs to be:**
 - relevant
 - concise
 - specific

Supporting statements

The Topic sentence

States the main idea - a general statement

Explanation or Definition (optional)

Clarifies any difficult or unclear terms in the Topic sentence

Alternatively: introduces the evidence

Evidence

Supports or develops the main idea with facts, examples, experiments, studies, arguments, quotes etc.

Comment

- Explains what the evidence means, & how it relates to your point.
- Supports or develops the evidence with analysis or further info e.g. opposing or contrasting points to broaden or develop the discussion
- If appropriate, mention other evidence (examples/studies/experiments/interpretations) to widen the discussion

Concluding sentence

- States the implications or consequences of the paragraph
- Shows the development of the argument
- Links back to the Topic sentence (may use same or similar key words from the Topic sentence)
- Links forwards to the main idea of the next paragraph

[1] A paragraph is a unit of thought. [2] Clear paragraph construction makes an argument coherent and well organised. [3] A paragraph should make one point, or one component of a bigger point in a section. [4] Readers expect paragraphs to have a single focus.

[1] Topic sentence

[2] – [3] Analysis

[4] Wrap sentence

How sentences work together

Writers have different **methods** of organising articles. Good **writers** appear to agree on a general **approach** to organisation. **This** consists of stating the problem, describing the method, presenting and discussing the results, and summarising the conclusions. **This type of organisation** seems obvious, logical and natural. However, **it** is not universally accepted. Some **writers** prefer to present results and conclusions near the beginning, and describe how they obtained these results in following sections.

Adapted from Katzoff, S. (1964) *Clarity in technical reporting*.

Academic phrasebank

<http://www.phrasebank.manchester.ac.uk/>



Academic Phrasebank

The University of Manchester

Introducing Work

Referring to Sources

Describing Methods

Reporting Results

Discussing Findings

Writing Conclusions

Home Page

GENERAL LANGUAGE FUNCTIONS

Being Cautious

Being Critical

Classifying and Listing

Compare and Contrast

Defining Terms

Describing Trends

Describing Quantities

Explaining Causality

Giving Examples

Signalling Transition

Writing about the Past

The Academic Phrasebank is a general resource for academic writers. It aims to provide you with examples of some of the phraseological 'nuts and bolts' of writing organised according to the main sections of a research paper or dissertation (see the top menu). Other phrases are listed under the more general communicative functions of academic writing (see the menu on the left). The resource should be particularly useful for writers who need to report their research work. The phrases, and the headings under which they are listed, can be used simply to assist you in thinking about the content and organisation of your own writing, or the phrases can be incorporated into your writing where this is appropriate. In most cases, a certain amount of creativity and adaptation will be necessary when a phrase is used. The items in the Academic Phrasebank are mostly content neutral and generic in nature; in using them, therefore, you are not stealing other people's ideas and this does not constitute plagiarism. For some of the entries, specific content words have been included for illustrative purposes, and these should be substituted when the phrases are used. The resource was designed primarily for academic and scientific writers who are non-native speakers of English. However, native speaker writers may still find much of the material helpful. In fact, recent data suggest that the majority of users are native speakers of English. More about [Academic Phrasebank](#).

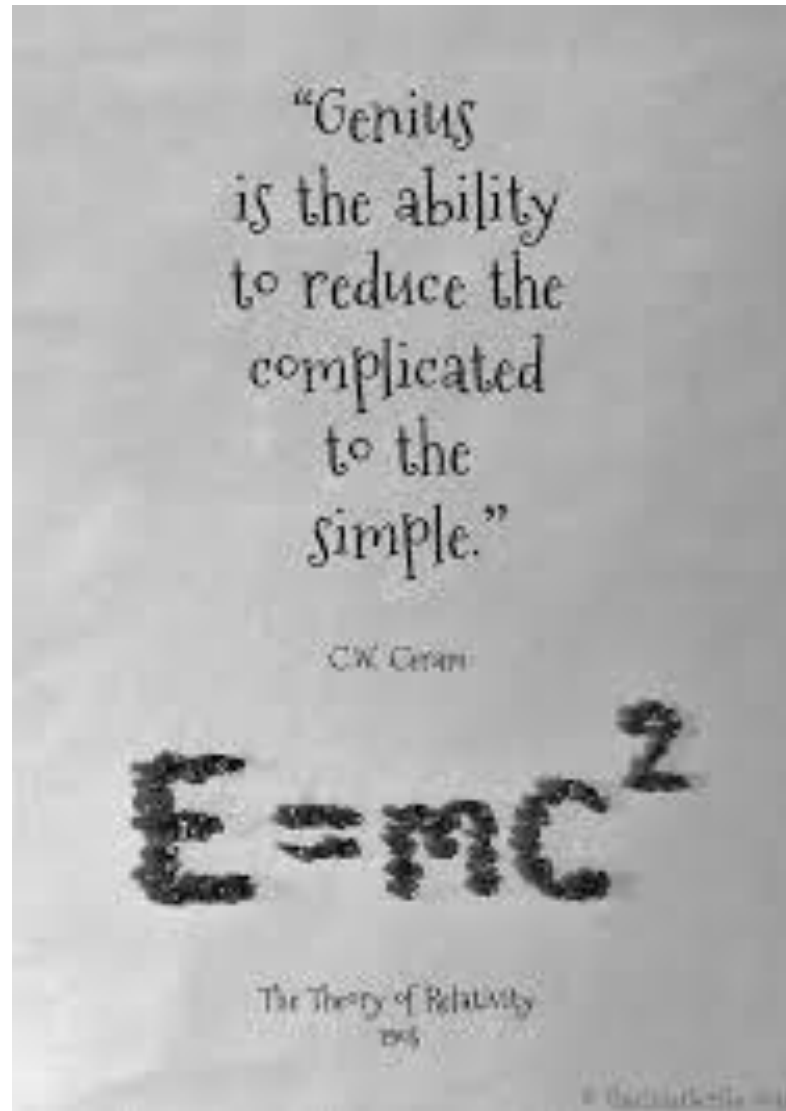
This site was created by [John Morley](#). If you could spare just two or three minutes of your time, I would be extremely grateful for any feedback on Academic Phrasebank: Please click [here](#) to access a very short questionnaire. Thank you.

Exercise D: connecting sentences

Answers

1. This discovery
2. Such rejections
3. Their performance
4. Such knowledge

4 Being concise and precise



Examples

achieve an improvement

carry out a test

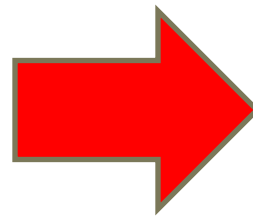
give an explanation

implement a change

make a prediction

reach a conclusion

subject to examination



improve

test

explain

change

predict

conclude

examine

Avoid impersonal expressions

- *It is necessary* to use X. ☹️
- X is necessary. 😊

- *It is advisable* to clean the recipients. ☹️
- The recipients *should* be cleaned. 😊

Avoid impersonal expressions

- *It is surprising* that ... ☹️
- *Surprisingly*, ... 😊

- *It is unfortunate* that ... ☹️
- *Unfortunately*, ... 😊

- *It is clear / evident / probable* that inflation will rise. ☹️
- Inflation will *clearly / evidently / probably* rise. 😊

End of Session 1

Writing scientific articles in English for publication

Session 2

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Session 2

Highlight your findings

Using 'hedging' to protect yourself

Strategic writing skills

Paraphrase and avoid plagiarism

Write an abstract

Highlighting your findings

...were not considered by the Chinese investigators to be related strongly to methadone dose.

Importantly, this study has demonstrated that the provision of OST is associated with a substantial reduction in the risk of HIV exposure associated with IDU. This finding accords with the findings of similar studies [1,6,7] and is particularly encouraging, given the observation that IDU risk-related behaviours remain reduced as long as clients are retained in treatment [24].

We believe this study confirms that OST is able to be...

Put key findings in short sentences

Key findings

Most people do not value the written medicines information they receive. The poor quality of many leaflets tested, in terms of content and layout, may reflect the finding that provision, more often than not, did not increase knowledge. **No evidence was found that the information affected patient satisfaction or compliance.** Qualitative evidence shows that patients do not see improving compliance as a function of PILs*; an informed decision not to take a medicine is an acceptable outcome. This contrasts with some professionals' view that increasing compliance was a prime PIL function.

- *PIL = Patient Information Leaflets

List implications of key findings

Four key areas in the Facing Dementia Survey findings illuminated current barriers to care for persons with AD*: **(i)** timing of diagnosis; **(ii)** AD as a health care priority; **(iii)** the impact of AD on the lives of patients, caregivers and their families; and **(iv)** understanding of available information about AD and its treatment.

*AD = Alzheimer's Disease

Consider using bullet points

Four key areas in the Facing Dementia Survey findings illuminated current barriers to care for persons with AD*:

- timing of diagnosis;
- AD as a health care priority;
- the impact of AD on the lives of patients, caregivers and their families; and
- understanding of available information about AD and its treatment.

*AD = Alzheimer's Disease

Use dynamic language

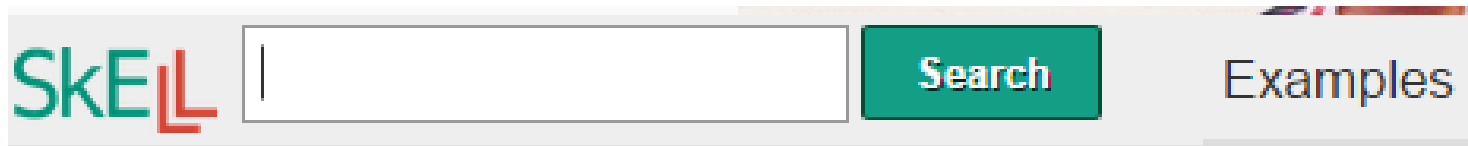
Remarkably, persons with chronic pain can report high levels of satisfaction with pain

Unfortunately, patients have difficulty communicating to physicians the full nature of their difficulties

Not **surprisingly**, the way in which senior nurses perceived their administrative duties was related to...

These findings are **intriguing**, as they suggest that...

This conclusion was based primarily on **convincing evidence** of a causal association between...



SKELL stands for the **Sketch Engine for Language Learning**.

<https://skell.sketchengine.co.uk/run.cgi/skell>

Make key findings accessible to a non-expert

The survey results showed broad agreement that **fear makes people hesitate to consult doctors** about AD. Although not directly addressed in this research, it is possible that such fear, combined with poor awareness of early symptoms and their ambiguous nature, creates a high level of uncertainty delaying any action until the disease process has advanced so far that **no one can any longer deny there is something wrong.**

Using 'hedging' to protect yourself

There is no absolute knowledge. [...] All information is imperfect. We have to treat it with humility.

Jacob Bronowski

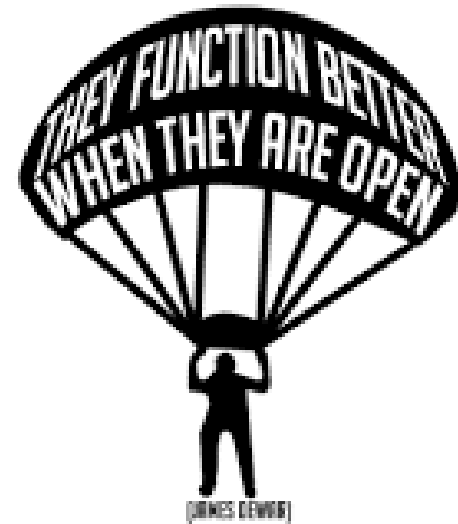


Why hedge?

To anticipate criticism.

To show you are open-minded.

**MINDS ARE LIKE
PARACHUTES**



Without hedging ☹️

Our results show /
prove that dogs are
more intelligent than
cats.



With hedging 😊

Our results seem to
indicate / suggest
that...

A possible conclusion
might be that...

The results of this
study lead us to
conclude that dogs
may be...

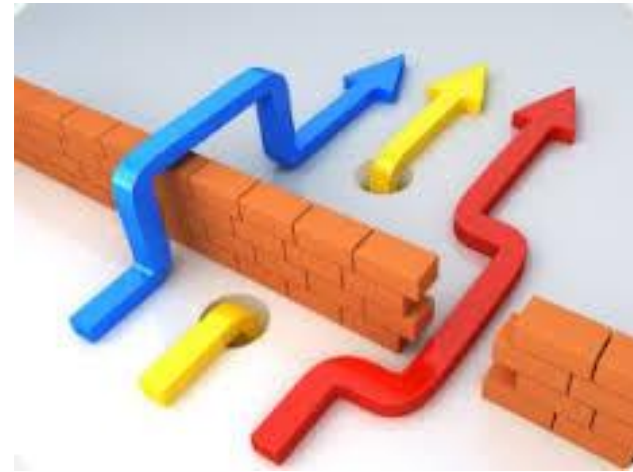
Categorical

- This factor **is** responsible for...
- These results **show**...
- These findings **prove** that ...
- This **means** that ...

Hedged

- This factor **may be** responsible for...
- These results **seem to show**...
- These findings **appear to prove** ...
- It seems **likely / probable / possible** that...

Anticipating alternative interpretations



Other factors could be responsible for ...

The opposite may also be true.

Other possible interpretations may be that ...

It may be premature to conclude that ...

Hedging: an example

Categorical

The evidence **shows** positive associations between patient experience and patient safety and clinical effectiveness that **are** consistent across a range of disease areas, study designs, settings, population groups and outcome measures.

With hedging

Overall, the evidence **indicates** positive associations between patient experience and patient safety and clinical effectiveness that **appear** consistent across a range of disease areas, study designs, settings, population groups and outcome measures.

Paraphrase and avoid plagiarism



Paraphrase

Put someone's ideas into your words.

Plagiarise

Copy and present as your ideas.

Common phrases

The evidence presented in this study demonstrates positive associations between patient experience and quality of care. This does not necessarily prove that improvements in patient experience will cause improvements in quality. However, evidence indicates that patient experience is clinically important. There is also some evidence to suggest that patients can be used as partners in identifying poor and unsafe practice and help improve safety.

Adapted from: Doyle C, Lennox L, Bell D. *A systematic review of evidence on the links between patient experience and clinical safety and effectiveness*. BMJ Open 2013;3.

Quote directly

- Doyle, *et al.* [2013] conclude that: “patient experience is clinically important”.
- As Doyle, *et al.* [2013] note: “patient experience is clinically important”.
- In their conclusions, Doyle, *et al.* [2013] state that: “patient experience is clinically important”.
- In their 2013 paper, Doyle, *et al.* write: “patient experience is clinically important”.

To paraphrase

Original

Doyle, *et al.* [2013] : “patients can be used as partners in identifying poor and unsafe practice”.

Paraphrase

- Doyle, *et al.* [2013] argue in favour of working with patients to discover inadequate practice.
- Doctors can form a partnership with patients to pinpoint areas of practice in need of improvement [Doyle, *et al.*, 2013].

Exercise G: paraphrasing

Possible answer:

The use of a helmet is key to reducing cycling fatalities, 75% of which are due to head injuries. By cushioning the head on impact, a helmet can reduce accidental injury by 85%, and save the lives of victims, half of whom are school children ('Bike Helmets, 348).

Writing a skeleton article

1. Work in pairs.
2. Choose a topic.
3. Use the 'Useful Phrases'.
4. Write your skeleton article.
5. Show it to another pair and ask for feedback.



Recommended books

Wallwork, A. (2011)
*English for writing
research papers.* New
York: Springer.

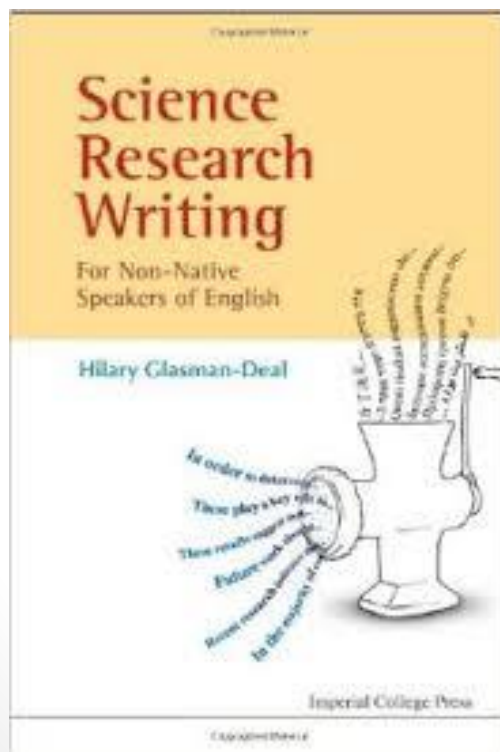


Wallwork, A. (2013)
*English for academic
research: writing exercises.*
New York: Springer.



More recommended books

Glasman-Dear, H. (2010). *Science research writing for non-native speakers of English*. London: Imperial College Press.



Glendinning, E.H. & Howard, R. (2007). *Professional English in Use: Medicine*. Cambridge: Cambridge University Press.



End of Session 2



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