

How to Shorten Abstracts Effectively

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Effective abstracts

- Characteristics
- Content
- Internal logic
- Tips
- Eliminating wordiness

Characteristics

1. Concise
2. Summary
3. Stands alone
4. Broadly available

Content

Grants: significance and agency goals

Research papers: IMRD subheadings

Content

Introduction → **Background**

Methods → **Methods**

Results → **Results**

Discussion → **Conclusions**

Internal logic

Problem or research question



Proposed work or data



Proposed solution or conclusion



Internal logic

“We hypothesized that the Q gene is associated with life span in mice.”

Mice without the Q gene lived an average of 1 year longer than those with the Q gene.

Conclusion: The Q gene is associated with life span in mice.

Internal logic

“We sought to determine the toxic effects of drug X in patient group A.”

20 of 25 patients developed a rash after taking drug X.

Weak conclusion: 80% of patients in group A treated with drug X develop a rash.

Strong conclusion: Rash is a toxic effect of drug X in patient group A.

Tips

- Selected data/details
- Readability
- Abbreviations
- Consistency
- Citations

Tips

- Read the instructions
- Use subheadings
- Write it last
- Get feedback

Eliminating wordiness

- Precision
- Pompous language
- Strong verbs
- Active voice
- Repetition
- Parallel construction
- Concise phrasing

Precision

The treatment affects overall survival by making it longer.

The treatment **increases** overall survival.

The enzyme affects phosphorylation by making it occur less often.

The enzyme **inhibits** phosphorylation.

Precision

Affects can also mean...

- Shortens
- Strengthens
- Stabilizes
- Transforms
- Kills

Pompous language

We will utilize this methodology in a clinical setting.

We will **use this method clinically.**

Trainees are given enhanced decision participation in key areas of the curriculum.

Trainees **can make key decisions** in the curriculum.

Pompous language

Use shorter or simpler words if possible:

Facilitated → helped

Instituted → started

Optimum → best

Prior to this → before

Demonstrate → show

Strong verbs

These effects are dependent on blood type.

These effects **depend on** blood type.

The drug caused an increase in heart rate.

The drug **increased** heart rate.

The patient's condition showed improvement.

The patient's condition **improved**.

Strong verbs

We performed data analysis and found...

We **analyzed the data** and found...

Better yet:

Our data analysis showed...

Active voice

The manuscript was written by the lead author.

The lead author **wrote** the manuscript.

An increased mutation rate was seen.

The mutation rate **increased**.

Repetition

We found that 17% of patients died of treatment complications. We also found that 79% died of disease. In addition, 4% were still alive despite disease recurrence.

We found that 17% of patients died of treatment complications, 79% died of disease, **and** 4% were still alive despite disease recurrence.

Repetition

Twenty-five patients had high hemoglobin levels, 35 had normal hemoglobin levels, and 12 had low hemoglobin levels.

Twenty-five patients had **high hemoglobin levels**, 35 had **normal levels**, and 12 had **low levels**.

Parallel construction

Protein X was inhibited by the enzyme, which also activated protein Y and caused protein Z to be phosphorylated.

The enzyme **inhibited** protein X, **activated** protein Y, and **phosphorylated** protein Z.

Concise phrasing

There have been several studies that have shown...

Several studies have shown...

In order to determine the appropriate approach, we must work in close proximity to our colleagues.

To determine the appropriate approach, we must work **near** our colleagues.

Concise phrasing

Other wordy phrases to avoid:

At the present time → now

A majority of → most

Give rise to → cause

It is often the case that → often

A considerable number of → many

Examples

Although definitive data have not been published at this time, our findings are supportive of this concept.

Although definitive data have not been published, our findings are supportive of this concept.

Examples

The mechanism of this process has received a great deal of attention in the field.

The mechanism of this process has received **much** attention in the field.

Examples

Western blot analysis showed that protein Z is expressed in a preferential way in tumor cells that are not invasive and declines once the cells become invasive.

Western blot analysis showed that protein Z is **preferentially** expressed in **noninvasive** tumor cells and declines once the cells become invasive.

Examples

It is possible that protein expression may be
an indicator of early changes in the cells.

Protein expression **may indicate** early
changes in the cells.

Examples

Regardless of the cells being targeted, the protein behaves consistently and always reaches where it wants to go.

Regardless of the cells being targeted, the protein behaves consistently and always reaches **its destination**.

Examples

It seems to be clear that there is a subset of patients who do benefit...

Some patients benefit...

Caution

Statistical terms

Smoking is associated with an increased risk of lung cancer.

Smoking increases the risk of lung cancer.

Articles

He examined cells for protein expression.

He examined **the** cells for protein expression.

Tips to eliminate wordiness

- Read text out loud
- Choose your words with care
- Use a dictionary and a thesaurus
- Imitate high-impact journals

Final thought

“Anything that goes wrong will always be wordier than anything that goes right.”

-Harold Evans

Resources

For more wordy phrases to avoid:

Day, Robert A. *How to Write and Publish a Scientific Paper*. Philadelphia: ISI Press; 1979.

Day, Robert A. *Scientific English: a Guide for Scientists and Other Professionals*. Phoenix: Onyx Press; 1992.