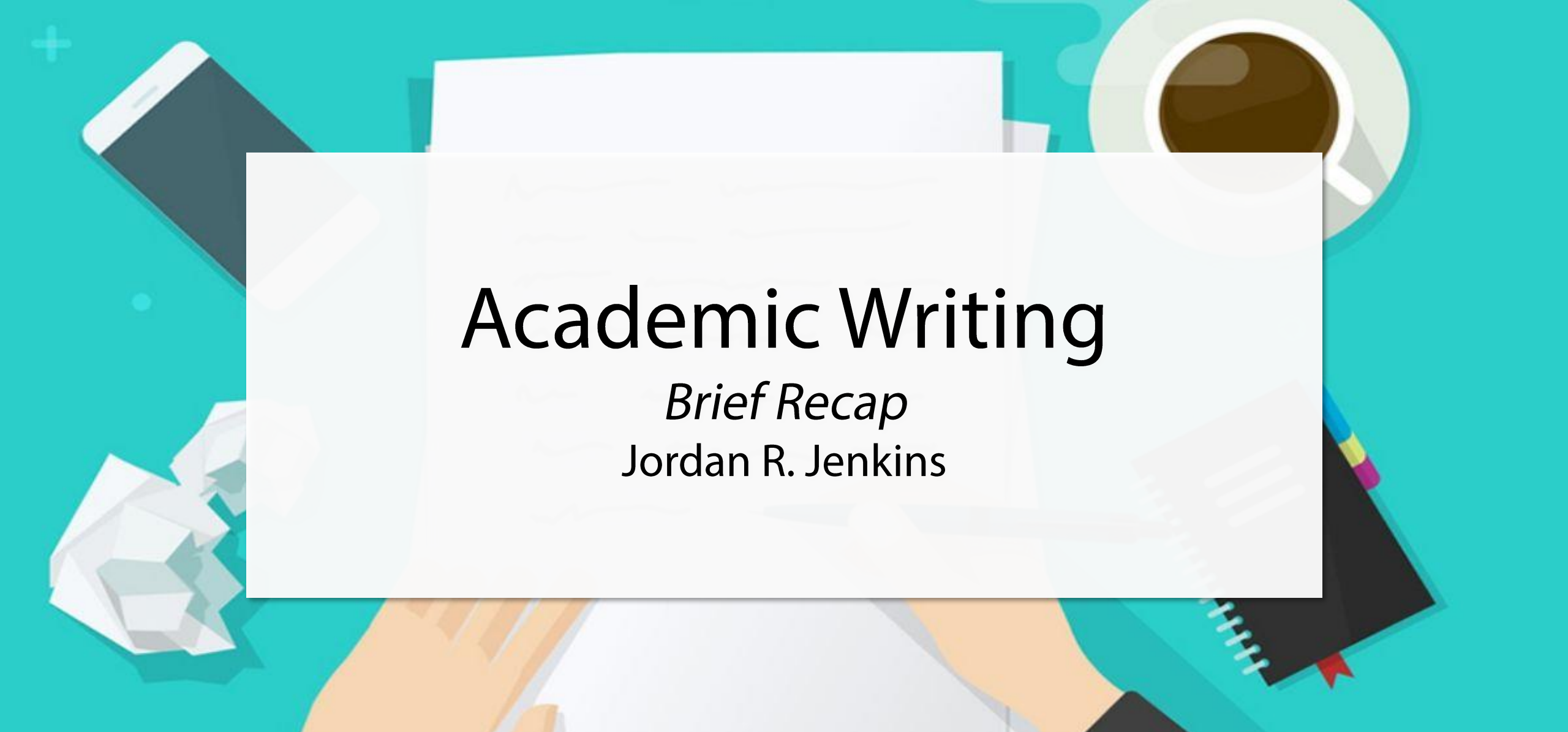




Academic Writing

Brief Recap

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What is Academic Writing



A formal style of writing used in universities and scholarly publications. You'll encounter it in journal articles, research papers/reports and books on academic topics.

you'll be expected to write your essays, research papers, technical reports, and dissertation in an academic style.

What is Academic Writing

(What differentiates academic writing from other types of text?)

Academic Writing is:

- Complex
- Concise
- Formal
- Objective
- Explicit
- Hedged
- Precise
- Referenced

It does **not** mean:

- Needlessly using long words.
- Writing complicated and verbose sentences.
- Finding more “academic” sounding words in a thesaurus.

Complexity

Text written in an academic style typically uses more varied vocabulary and has a higher lexical density than informal writing or spoken words.

Lexical density is a measure of the proportion of content words in a sentence or text.

A content word is one which has a stable and significant meaning, think verbs, nouns, adverbs or adjectives.

Enhance (verb)

Capability (noun)

Productively (adverb)

Organisational (adjective)

Complexity Examples

1. Significant expenditure on product marketing might only be of limited assistance to a corporation if the quality of that product is below a certain minimum acceptable standard.
 - This sentence contains 52% content words, and thus is rather dense, however it is more difficult to read/understand.
2. It is not much use spending a lot of money on marketing a product if the quality of the product is poor.
 - This sentence contains about 36% content words. It is less dense and therefore easier to read than sentence 1.
3. If I were you I would not spend a lot of money on marketing that product of yours.
 - This sentence contains about 22% content words. It is not dense and is easier to read than sentence 2, but lacks clarity and formality.
4. Spending money on marketing a low quality product is probably unhelpful.
 - This sentence contains about 64% content words. It is dense. However, it is short, fluent and easy to read.

Concise

(Tips for avoiding verbose writing – needless wordiness)

A 5-step guide to avoiding wordiness:

1. Before editing, give yourself a break. A fresh perspective makes a world of difference.
2. Mark/note sections of your writing that you struggled to write (we tend to waffle when we struggle).
3. Read through your paper once, focusing only on eliminating any unnecessary and repetitive language.
4. Remove filler words in your writing.
5. Learn what verbose and repetition patterns are typical of your writing, and edit with those patterns in mind.

FILLER WORDS

absolutely	maybe	seriously
actually	now	simply
almost	okay	slightly
basically	only	so
clearly	perhaps	somehow
even	quite	still
exactly	rather	sudden(ly)
fairly	really	that
feel/felt	reasonably	then
highly	relatively	though
hopefully	right	totally
just	seems/ed/	very
literally	ing	well

Formal

In a technical report, use tenses exactly as you would in ordinary writing:

- Use the past tense to report what happened in the past: what you did, what someone reported, what happened in an experiment, and so on.
- Use the present tense to express general truths, such as conclusions (drawn by you or by others) and atemporal facts (including information about what the paper does or covers).
- Reserve the future tense for perspectives and future work: what you will do in the coming months or years.
- Typically, most of your sentences will be in the past tense, some will be in the present tense, and very few (if any) will be in the future tense.

Formal

In a technical report, you must write in the 3rd person:

Don't Write – “I have verified that all the results included in the report are accurate.”

Do Write – “It has been verified that all the results included in the report are accurate.”

Don't Write – “My aim for this report is to review the current trends in...”

Do Write – “The aim of this report is to review the current trends in...”

Don't Write – “We got to the correct value by recalibrating the machine.”

Do Write – “the correct value was achieved by recalibrating the machine.”

Formal

Generally, in academic writing you should avoid:

- Colloquial vocabulary and informal expressions; “stuff”, “a lot of”, “things”, “sort of” etc.
- Figures of speech such as “well”, “anyway”.
- Repetition, redundancy and wordiness; “completely unique”, “adding together”.
- Two word verbs: “put off”, “bring up”, “filled in”, “turn down” etc.
- Abbreviated phrases: “can't”, “doesn't”, “shouldn't”.

Formal

You should also avoid using overly basic vocabulary:

- John **did well** in isolating the damaged transistor from the PCB assembly.
 - John **succeeded** in isolating the damaged transistor from the PCB assembly.
- The number of collaborative robots has **gone up** in Industrialised countries.
 - The number of collaborative robots has **increased** in Industrialised countries.

Objective

The main emphasis should be on the information that you perceive as important or want to give and the arguments you want to make, rather than your own personal opinions.

- Unfortunately, people seldom want to hear what you “think” or “believe”.
- They want to know what you have studied and learned, and how this has influenced your various conclusions.
- If you do include your own thoughts and opinions, they should be informed/supported by reading, discussion and research (unbiased).

Objective

(Compare these two paragraphs: which is the most objective?)

1. We don't really know how neural networks work, but many people have talked about them for a long time. Some researchers have tried to find different ways to test how they work. I think that neural networks use maths to simulate human brain activity.
2. The question “how do neural networks simulate the functions of the human brain” is currently at the core of many hotly debated topics within AI and machine learning. Researchers have suggested that mathematical activation functions simulate neuron activity in the human brain (e.g., Jones and Swain, 2019; Davies, 2020) on the grounds that they, like biological neurons, react when exposed to a stimuli.

Objective

(Avoiding me, myself and I)

- Avoid words like “I”, “me”, “myself”. The reader will normally assume that any idea not referenced is your own. It is therefore unnecessary to make this explicit.

Don't write: “In my opinion, this is a very interesting study”.

- **Write:** “This is a very interesting study”.

- Avoid “you” to refer to the reader or people in general.

Don't write: “You can easily forget how different technology was 50 years ago”.

- **Write:** “It is easy to forget how different technology was 50 years ago”.

Explicit

- Academic writing is explicit in its organisation of the ideas/concepts in the text.
- As the writer, it is your responsibility to make it clear to your reader how various parts of the text are related.
- These connections can be made explicit by the use of different signalling words.

Text Structure Signal Words

- **cause–effect:** therefore, as a result, leads to, so, because of, thus, in order to, if...then
- **problem–solution:** fortunately, unfortunately, therefore, trouble, problem, issue, challenge, answer, solution, conclusion
- **compare–contrast:** different from, the same as, similar to, as well as, but, compared to, in contrast, however, like, unlike, more, less
- **time–order:** first, next, then, last, finally, meanwhile, following, before, after, on [date]
- **description:** for example, for instance, in addition, also, too, some, most, all, other
- **question–answer:** what, where, why, who, how, when, does

Explicit

- If you are giving examples, do it explicitly:
 - “For example”
- If you think that one sentence gives reasons for something in another sentence, make it explicit:
 - “Because”
- Be explicit in your acknowledgment of the sources of information:
 - All sources of information used should be explicitly labelled with in-text citations. Direct quotations should be enclosed with quotation marks.
 - You can also paraphrase if you want to keep the length the same, summarise if you want to make the text shorter or synthesise if you need to use information from several sources.

Hedged

An important feature of academic writing is the concept of cautious language, often called hedging. It is necessary to make decisions about your stance on a particular subject, or the strength of the claims you are making:

- “Williams **proved** that Python is an easier programming language for beginners than C++.”
 - “Williams **Suggested** that Python is an easier programming language for beginners than C++.”
- “Nowadays, cylindrical robots **are** less commonly used.”
 - “Nowadays, cylindrical robots **appear** to be less commonly used.”

Precise

In academic writing, you need to be precise when using information, dates or figures:

Don't write: "The calibration procedure took a lot of time to complete."

- **Write:** "The calibration procedure took eight and a half hours to complete."

Don't write: "The study ended recently."

- **Write:** "The study ended during the last X days/months/years."

Don't write: "Relay control systems were common in the past."

- **Write:** "Relay control systems were common between 1950-1975."

Referenced

- One of the **most important** aspects of academic writing is making use of the ideas of other people.
- Show that you have understood the materials that you have studied and that you can use their ideas and findings in your own way.
- When you are writing about someone else's idea or work, whether it was found in a book, paper, website, journal or even lecture notes, you **must** credit the original source by citing the information/idea in the body of text, and include the reference in your list of references.
- Failure to do so can result in accusations of plagiarism, its important to remember that plagiarism can be intentional or unintentional.

Referenced

If you copy and paste from a website and then add a reference

This is still plagiarism

So how can we write about research without plagiarising?

Paraphrasing and Summarising

The original text:

Students frequently overuse direct quotation in taking notes, and as a result they overuse quotations in the final [research] paper. Probably only about 10% of your final manuscript should appear as directly quoted matter. Therefore, you should strive to limit the amount of exact transcribing of source materials while taking notes. Lester, James D. Writing Research Papers. 2nd ed. (1976): 46-47.

A legitimate paraphrase:

In research papers students often quote excessively, failing to keep quoted material down to a desirable level. Since the problem usually originates during note taking, it is essential to minimize the material recorded verbatim (Lester 46-47).

An acceptable summary:

Students should take just a few notes in direct quotation from sources to help minimize the amount of quoted material in a research paper (Lester 46-47).

A plagiarized version:

Students often use too many direct quotations when they take notes, resulting in too many of them in the final research paper. In fact, probably only about 10% of the final copy should consist of directly quoted material. So it is important to limit the amount of source material copied while taking notes.

Effective Paraphrasing

Method 1

1. Read the source several times until you understand the paragraph fully.
2. Decide which parts of the paragraph would help you make a point in your paper.
3. Put the source away.
4. Write some notes on the ideas in the paragraph as if you were telling someone else (a friend) what the source said.
5. Put the notes away for a day then use them to draft your own paragraph in your own style.

Effective Paraphrasing

Method 2

1. Change the structure.

Start at a different place in the passage, this will make you change the sentence structure. Break up long sentences, combine short ones, add more information for clarity, or reduce information to make it more concise.

2. Change the words.

Use synonyms or phrases of the same meaning. If you have to use the same words put quote marks around them unless it is shared language (technical terms such as chemical names).

3. Repeat the process until you are happy that the text is sufficiently differentiated.

NO Idiomatic / colloquial (slang)
Kids / boss / ~~gonna~~ / stuff

NO Phrasal verbs
Go up / look up

NO Personal Pronouns
I, we, In my opinion (limit use)

NO Contractions
It'll = it will / It's = it is

NO Questions
So why did the project fail?

NO Personal adverbs
Surprisingly / fortunately

NO number / bullet points

NO vague language
And so on.. / ~~etc...~~

NO Repetition
Constant repeating same words

Academic Writing

No basic language
Like – for example
Thing – factor
~~Lots of~~ – significant amount
~~Little / big~~ – large
Get - obtain
Hard - difficult
~~Good / bad~~ – positive / negative
~~Amazing / wonderful~~ - important

YES Passive structures
*We analysed the data /
The data was analysed*

YES –Academic Vocabulary
See A.W.L

YES – Referencing systems

YES Complex Grammar structures
Nominalisation / noun structures

YES Caution / hedging – tentative language
Possibly / seems / appears / could / may

YES Accurate vocabulary
Difference between law / rule

YES Precise facts / figures
A few years ago / in 2014