

Writing Abstracts

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1 Language: Using an Academic Style

When writing an academic text such as a report or an abstract, it is important to use an appropriate style. Many decisions you will have to make when selecting the most appropriate language relate to issues of:

- 1 formality
- 2 objectivity
- 3 conciseness
- 4 degree of certainty

1.1 Formality

When writing a formal text, make sure that you avoid contractions (i.e. use *do not* instead of *don't*), colloquial language, the word *get*, phrasal verbs, and extreme or emotive language. Vocabulary that has its origins in Latin or French is usually considered more formal and therefore more suitable for use in an academic report or essay.

Here is a short overview of the most typical features of formal and informal language:

INFORMAL	FORMAL
Sentence structure is mostly simple , sometimes incomplete or grammatically incorrect or Vague .	Sentences are usually complex , showing considerable variety in construction .
Use of idioms and slang .	Accurate use of academic/technical language and specific vocabulary.
Words of Anglo-Saxon (Germanic) origin <i>get, keep, look into</i>	Words of Latin / French origin <i>obtain, maintain, investigate</i>
Phrasal Verbs <i>be made up of, come across</i>	Single word verbs <i>comprise, discover</i>

Use of contractions (short forms) <i>They can't complete the report on time.</i>	No contractions (full forms) <i>They cannot complete the report on time.</i>
Simple, neutral linking words <i>but, so, and</i>	Formal connecting words <i>yet, however, thus, furthermore</i>
Active constructions, personal address <i>They say that ...</i> <i>I won't look at the issue of ...</i> <i>We found out that ...</i>	Impersonal, passive constructions <i>It is said that ...</i> <i>The issue of ... will not be examined.</i> <i>The results showed that ... / It was found that ...</i>
Frequent adverbs and adjectives for emphasis <i>really, very, such a, lots of, a lot</i>	Fewer, more formal adverbs and adjectives for emphasis <i>notably, remarkably, a considerable number</i>
Modal verbs, simple verbs+ adjectives <i>The patients shouldn't move round too much.</i> <i>When the bits everyone was getting wrong had been explained ...</i>	Abstract nouns <i>Physical activity is not recommended.</i> <i>After clarification of the problem areas ...</i>

Formality Levels

When you write a report or an abstract, replace the informal expressions below with their more formal counterpart.

Informal expressions	More formal expressions (in order of increasing formality)
<i>a bit</i>	<i>a little, slightly</i>
<i>a couple</i>	<i>two, a pair, a duo</i> (for people, “couple” implies man and woman)
<i>a lot, a lot of, lots of</i>	<i>several, many, multiple</i>
<i>anyhow</i>	<i>in any case, in any event, nevertheless, nonetheless</i>
<i>anyway</i>	<i>although, thus, however</i>
<i>besides, too</i>	<i>also, in addition, likewise, furthermore, moreover</i>
<i>enough</i>	<i>sufficient</i> (<i>insufficient</i> is also useful)
<i>to fix</i>	<i>arrange, manage, handle OR repair, renovate, recondition</i>
<i>to give</i>	<i>supply, furnish, offer, provide, yield</i>
<i>gone</i>	<i>lacking, absent, missing</i>
<i>hard</i>	<i>difficult, demanding, laborious, time-consuming, taxing</i>
<i>to let</i>	<i>allow, permit, give permission for</i>
<i>little (= few)</i>	<i>few, insufficient, lacking, rare, scarce, sparse</i>
<i>to look for</i>	<i>seek (sought), search for</i>
<i>to make</i>	<i>produce, construct, form, compose, build, create, originate, constitute</i>
<i>plenty of</i>	<i>abundant, ample</i> (vs. <i>sparse</i>), <i>numerous, frequent</i> (occurring over time)
<i>pretty</i>	<i>almost, moderately, not uncommon, rather</i>
<i>quite</i>	<i>considerably, noticeably, notably, markedly, greatly</i>
<i>so</i>	<i>therefore, thus, hence</i>
<i>to start</i>	<i>begin, initiate, undertake</i>
<i>to take</i>	<i>adopt (100%), adapt, transfer, possess</i>
<i>think X is</i>	<i>consider X to be, judge X to be, deem X to be</i>
<i>though</i>	<i>even though, although, notwithstanding</i>
<i>too</i>	<i>also, in addition, as well as, likewise</i>
<i>to try (to)</i>	<i>attempt to</i>
<i>to turn out</i>	<i>prove/proven to be X</i>
<i>way</i>	<i>means, approach, method, procedure, manner</i>
<i>to work out</i>	<i>solve, resolve, determine, devise, OR clarify</i>

Verbs for Scientific Academic Writing

The box below lists alternative ways of expressing ideas related to the underlined head word. Before using these verbs in your writing, check their meaning and use in context with a dictionary of collocations (e.g. www.ozdic.com).

<u>to look at</u> observe view / review perceive regard approach be aware of study	<u>to be finding out</u> learn see search survey inspect inquire query ascertain (= check) explore investigate identify agree check detect uncover determine assess analyze (vs. analysis!) calculate	<u>to balance</u> evaluate consider speculate decide conclude acknowledge advocate defend concede	<u>to show</u> indicate suggest demonstrate imply point out exhibit reveal disclose display illustrate exemplify make evident contrast approximate comment on affirm assert testify (to) interpret define
<u>to compare</u> contrast match characterize probe relate correlate associate differentiate distinguish		<u>to test</u> confirm establish verify substantiate ensure falsify	
<u>to contain</u> consist of compile include comprise	<u>to decrease</u> decline reduce diminish lessen deteriorate erode minimize narrow worsen weaken	<u>to increase</u> raise broaden enlarge exceed expand generate improve intensify strengthen maximize optimize	

1.2 Objectivity

Objectivity means making your writing seem **impersonal** and therefore more **scientific**. For this reason, particularly in the sciences, it is unusual to use words that relate to yourself very often (*I/we, me/us, my/our, myself/ourselves*, etc.). Instead, impersonal statements are used. It is often possible simply to omit the *I* or *we* to make a statement more objective. Another alternative is to use the **passive voice** or '**it + passive**', so there is no agent mentioned.

e.g.: We can use the same strategy for other products in the range.
 → *The same strategy can be used for other products in the range.*

1.3 Conciseness

Conciseness is another important aspect of scientific academic writing. This means using the most appropriate word for each idea and avoiding long sentences, if a shorter one presents the same meaning.

To find more concise or more formal words, so that you avoid repeating the word too many times, use a thesaurus (a dictionary of synonyms). Look up the word you want to replace and scan the list of alternatives until you find a suitable word. Then double-check that the new word can be used in the original context by looking it up in a collocations dictionary (www.ozdic.com), or a conventional dictionary (if possible, one with example sentences). Try the online thesaurus, www.thesaurus.com, or the more visually stimulating and interactive one, www.visualthesaurus.com/online/.

1.4 Expressing Degrees of Certainty

In academic writing claims are often hedged. In other words, they are expressed tentatively, as *possible* rather than *certain*, in order to make a statement seem more objective.

Modal verbs indicating possibility	e.g. <i>might, could, would</i>
Verbs distancing the writer from the claim or showing that the writer is speculating	e.g. <i>seem, indicate, assume</i>
Adjectives, adverbs and nouns showing the degree of certainty	e.g. <i>possible, possibly, possibility, probable, probably</i>
Other expressions qualifying or limiting a claim	e.g. <i>generally, tend to, in most cases, usually, largely</i>

1.5 Useful Links for Academic Writing

Academic writing

- www.phrasebank.manchester.ac.uk/ (useful phrases for the various sections of a report or paper, see menu at the top of website)
- www.uefap.com/writing/writfram.htm (extensive guide, see menu on the left of website)
- www.oxfordlearnersdictionaries.com/wordlist/english/academic/ (common words used in an academic context)

German – English dictionaries

- <http://dict.leo.org/>
- <http://www.dict.cc/>
- <http://www.linguee.de>

English – English dictionaries

- <http://www.onelook.com/>
- <http://dictionary.cambridge.org/>
- <http://www.merriam-webster.com/>
- <http://www.thesaurus.com/> (dictionary of synonyms)
- <http://www.ozdic.com/> (how words are used in context)

Specialist dictionaries for mechanical engineering

- <https://er.jsc.nasa.gov/seh/menu.html> (dictionary of technical terms for aerospace use)
- <http://www.dict.cc/?s=subject%3Aengin> (more than 1,600 engineering-related words)
- <http://goo.gl/5914zE> (Oxford's online Dictionary of Mechanical Engineering)
- <https://woerterbuch.langenscheidt.de/login.html> (collection of specialist dictionaries; you need to access this website via VPN or the ZHAW library)
- <http://de.dictindustry.com/deutsch-englisch> (bilingual dictionary of technical terms)

Online research

- <https://www.zhaw.ch/de/hochschulbibliothek/recherchehilfe-kurse/fachinformation-ingenieurwesen/#/c8820> (access databases and dictionaries via the ZHAW library website)
- <https://scholar.google.ch>
- http://apps.webofknowledge.com/WOS_GeneralSearch_input.do?product=WOS&search_mode=GeneralSearch&SID=Q2mH8i19S2ON23IW0Qa&preferencesSaved= (web of science)

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