

**ASSAf WORKSHOP ON
SCIENTIFIC/SCHOLARLY
WRITING**

**USE OF ENGLISH
WIELAND GEVERS**

Basic requirements

- **conciseness and being to the point**
- **elegance and readability**
- **clarity and the absence of ambiguity**
- **avoidance of unjustified speculation and undue repetition**
- **sound grammar generally, and correct spelling and punctuation in particular**

Paragraphing...

- **Content belongs together**
- **'Look on the page'**
- **Vary length for impact**
- **Leave space between paragraphs, no indentation**
- **Check each one before moving on, and within whole text**

Punctuation I

- **Basic sentence: Subject, verb, object...**
- **Connect if clearly belongs together and saves words**
- **Use commas, semi-colons, colons and dashes to remove ambiguity, simulate speech, and create different effects**

Punctuation II: Commas

- Use after introductory words, phrases or clauses, e.g. **Indeed, there was no shortage of possible interpretations**
- Use between independent clauses (clauses which could stand alone as sentences) joined by conjunctive words like 'and', 'yet', 'since', 'but', 'as', 'or', 'nor', 'for' and 'so', e.g. **The question of ethics in this matter is central, since one cannot be certain that chimpanzees cannot grieve over the loss of a companion**
- Use both before and after words or phrases inserted 'in parentheses' into a sentence between the subject and the verb, e.g. **The possibility of outside interference, however, had not been excluded**
- Use when words or phrases are put in series, also after the last but one component, e.g. **Poverty, starvation, and disease were rife at this time in this community**
- Use when several adjectives qualify a single noun, e.g. **The problem has been a serious, generally intractable, and potentially catastrophic issue for rural towns for years**
- Avoid putting commas immediately before verbs, e.g. **don't write: The drought-related, poor quality of several harvests and the simultaneous occurrence of influenza epidemics, led to much-increased mortality figures for this region.**

Punctuation III: Semicolons

- **Semicolons are used to connect clauses that could stand as separate sentences, mainly to ensure they are understood as being connected matters. They can also serve to render a complicated sentence more clear and understandable.**
- **Use semicolons when you wish to connect two independent clauses with the special connecting words ‘however’, ‘moreover’, ‘nevertheless’, and ‘therefore’, e.g. The incidence of HIV infection in pregnant women was over 20% in every region of the province; however, transmission to the foetuses concerned was vanishingly, and puzzlingly, rare.**

Punctuation IV: Colons

- **Use to link parts of sentences by way of illustration, expansion or explanation, e.g. The results could not have been more surprising: every case of a new infection was linked to infected cattle and not humans.**
- **Introduce quotations with a colon, e.g. The supposed relationship between high-fat diets and obesity was described by A B Jones as highly dubious: ‘All the studies purporting to show that obesity is related to the consumption of a high-fat diet have neglected to measure total kilojoule intakes in the groups being examined’.**
- **Present lists of items after a colon, e.g. It has been established for many years that the causes of allergic conditions in squatter camps are multiple: damp, over-crowding, poor ventilation, dust, and lack of adequate sanitation**

Punctuation V: Dashes

- Dashes are a refinement of writing, permitting a little more informality in formal texts.
- Use dashes to insert a clause in another sentence when this is justified in being better than putting the inserted words within round or square brackets e.g. The results are highly suggestive -- provided that no certainty is assumed in the absence of statistical proof -- of a positive effect of this compound on the rate of cardiac contraction
- Dashes can be used to permit a summing-up statement, comment or conclusion to be appended to a sentence or paragraph, e.g. The beneficial effects of this plant extract are remarkably similar to those of many drugs already known to be effective in chronic liver disease, there appear to be no safety risks in humans, and the costs of production are well below those of patented medicines -- the extract in its present form simply must be approved for general clinical use as soon as possible .

Punctuation VI: Rounded brackets

- **Rounded brackets (one form of parenthesis) is widespread in scholarly writing; the enclosed words are kept separate from the text but remain essential to its meaning and utility.**
- **Round brackets are used when you wish to give the reader a useful hint that help is available, e.g. in the use of the terms, e.g. (see above) and (see below).**
- **Round brackets can also be used to provide a reference, e.g. (Damiansky et al, 2003).**
- **Longer clause insertions similar to those discussed and exemplified under 'Dashes' can be enclosed in round brackets rather than dashes, e.g. There are indications (and the number of papers supporting rather than contradicting this has reached a new high) that global warming has entered an accelerated stage.**
- **Punctuation marks belonging to the main sentence containing a round-bracketed clause must remain part of that main sentence and not be enclosed in the brackets, e.g. The last discovery in this field (and it may be the last one we will ever see), was made exactly fifty years ago.**

Punctuation VII: Square brackets

- **Square brackets are sparingly used in scholarly/scientific writing in order to provide inserted words or numbers as substitutes for quoted material.**
- **Use square brackets when you wish to supply a word or words, or a number or numbers, that replace words or numbers that are missing in a quotation, e.g. Dlamini said: He had never seen any evidence of [elephants] uprooting trees in the commercial plantation.**

Punctuation VIII: Quotation marks

- Use single quotation marks in all cases where you are quoting directly what a person (live or as a publication) or a particular document has said or stated, e.g. The designated observer clearly said ‘There is nothing whatsoever to be seen of anything unusual in the experimental area’.
- Observe the following rules with quoted material: If a full sentence is quoted, put the full stop before the closing (single) quotation mark; if less than a full sentence is quoted, the full stop comes after the closing (single) quotation mark.
- Use single quotation marks around words that are ‘loaded with meaning’, i.e. loaded with more meaning than is applicable to the usual use of the word, e.g. He regarded the university as a ‘business’, and its council as a ‘board of directors’.
- Use single quotes for titles of works or papers to which you refer, e.g. He had not ever read ‘The Origin of Species’ or any other work on evolution.
- Double quotation marks are used when a quotation is made within another quotation, e.g. Bertrand Russell said: ‘I have never heard anyone say “I have no doubts whatsoever about the existence of God”, but that does not make all my contemporaries atheists.’

Punctuation IX: Ellipsis marks

Ellipsis marks are A row of three full stops (dots, periods) used to indicate the deliberate omission of a set of words in a quotation, to save space and avoid boring the reader. The remaining words must always retain their correct grammatical construction, and must make sense, e.g. Marks said: ‘The children of wealthy people rarely, if ever, have feelings of guilt...about their situation of plenty’ and rarely give generously to charities. [The words omitted are: ‘or special responsibility, pangs of conscience or even protestations of self-justification’]

Punctuation X: Apostrophes

Apostrophes are superscripts associated with possessives and are governed by strict rules, either for their use or their avoidance.

- **Use the apostrophe for all possessives in the singular, always as [’s.], e.g. The child’s toys.**
- **With all plurals ending in the letter s, add only the apostrophe [’], not another s, e.g. The woodpeckers’ nests.**
- **With plurals not ending in the letter s, add the full apostrophe [’s], e.g. Women’s rights.**
- **Do not use apostrophes to form the plurals of dates, just an [s], e.g. 1980s**
- **Do not use apostrophes for the possessives of personal pronouns, e.g. “hers”; “ours”; ‘yours’; ‘its’ (and especially distinguish the last-mentioned ‘its’ from the apostrophised form of ‘it is’, which is ‘it’s’).**

Punctuation XI: Hyphens A

Hyphens are used to connect words which are best not kept separate in a sentence (most often to avoid ambiguity) or which have not yet become fully combined, as generally accepted practice, into new compound words. [Note: Unlike other languages closely related to it, such as German or Dutch/Afrikaans where often extensive compound words can be constructed ad libitum by any speaker, English generally 'resists' the adoption of compound words until these have 'proved their worth', so to speak. Thus 'work place' slowly became 'work-place' until it was widely accepted as 'workplace']

Punctuation XI: Hyphens B

- **Always hyphenate compound adjectives, in which two words (which are not adverbs) function as a single adjective, e.g. The slow-moving animal made its way to the nearest copse of trees. [If the adjectival words were not hyphenated, the sentence could refer to a slow ‘moving animal’]; The above-described phenomena were observed in every case where the conditions were similar.**
- **Do not hyphenate compound adjectives where either of the words is an adverb, i.e. do not hyphenate the term ‘heavily pregnant’ or ‘most usually’.**
- **Hyphenate compound numbers such as ‘twenty-one’ or ‘twenty-fifth birthday’.**
- **Use hyphens when applying prefixes to words in ways that are not yet ‘dictionary- standard’, to avoid ambiguity, e.g. you retrace your steps but you re-trace the drawing.**

Abbreviations/Acronyms

Abbreviations are helpful when standard (i.e. included in most dictionaries, such as 'etc.'; 'et al'; 'e.g.'; 'i.e.'; 'viz.'; 'fig.') and unhelpful when not, e.g. 'lab' for 'laboratory'; 'incl.' for 'including'

Acronyms (names of organisations expressed as a set of capitals derived from their formal names) must always be defined at first use in a single paper/work, e.g. 'National Research Foundation (NRF)' when first mentioned, only 'NRF' afterwards.

Tenses

As a general rule, the description of one's methods, results and conclusions should be in the past tense, as they are new to readers and not yet confirmed by others. Similarly, the results of other authors should usually be described in the past tense, e.g. Khumalo et al found that bee venom contained no free nucleotides. By contrast, descriptions of previously multiply published and by now generally accepted concepts or findings are put in the present tense, e.g. The "energy charge" of living cells is sensed by the ambient AMP level through a variety of mechanisms.

Avoiding gender insensitivity

- **Traditional usage not referring to a definite person involved the now-inappropriate ‘universal’ male pronouns ‘he’, ‘his’, and ‘him’, e.g. ‘When a scientist writes up his work he always describes his methods in full’. This is now for good reason taboo. You have two choices: use plurals, e.g. When scientists write up their work, they always describe their methods in full, or you can use the (clumsy) form of ‘he or she’.**
- **Do not use the terms ‘Man’ or ‘mankind’; rather opt for ‘humankind’ or ‘humans’.**

Tricky words I

- **Affect or effect:** The first verb leads to something/someone being 'affected' (influenced) by something, the second to something being 'effected' (made to happen).
- **Among or between:** The first involves a division where more than two recipients are involved, e.g. The goods were divided among all ten participants, while the second involves only two recipients, e.g. The goods were divided between the twins.
- **Amount or number:** The first refers to material, e.g. I added an amount of exactly 10g of sucrose to the mixture, and the second to units, e.g. The number of rats in each cage varied from two to five. Similarly, 'less than' refers to material, and 'fewer than' to units. You also say Ten grams was added, not Ten grams were added.
- **Compare with, compare to:** The first comparison is neutral between the two subjects/objects being compared, the result not being anticipated by the observer, e.g. The performance of the one group was compared with that of the other. The second expresses a comparison which starts off being clearly in favour of one of the subjects/or objects being compared, e.g. Shall I compare thee to a summer's day?

Tricky words II

- **Continual or continuous:** The first implies something that must happen frequently or repeatedly; the second, something that must be happening all the time, without interruption.
- **Data or datum:** Strictly speaking, 'datum' is the (Latin) word for a bit of information, and 'data' is the plural. The word 'data' has, however, now become a singular OR a plural word, and it is permissible to say 'data are' OR 'data is', or 'data have been' OR 'data has been'.
- **Differ with or differ from:** The first indicates a contestation between two people, e.g. 'He differs with Sweeney on the interpretation of this set of data', the second indicates that something is different from another thing, e.g. This result differs from that obtained by Sweeney. Never use 'different to'!
- **Due to or owing to:** These are really interchangeable, although there was once a distinction. Try to use 'because' whenever you can, instead of these words, and avoid 'due to the fact that', which is a clumsy and too-long term.

Tricky Words III

- **However:** This word can only be used at the beginning of a sentence in a particular way, e.g. However you look at it, this will never be a sound working model. All other uses, like the similar 'nevertheless', involve placing the word between commas, e.g. The data obtained in this way, however, were never consistent.
- **Only:** The placing of this word in any sentence requires thought and 'feel'. Generally, you can find your way by following the simple rule of placing the word 'only' just before the word it qualifies, e.g. It was only possible to measure the gas exchange once during an experiment, as opposed to It was possible to measure only the gas exchange during the experiment, or It was possible to measure the gas exchange only during the experiment.
- **That and which:** 'That' is a restrictive pronoun, and 'which' a non-restrictive one. Thus, one writes The only solvent that we used in the first experiments was acetone, which we purchased from Merck. In the first instance, acetone is specified (restrictive); in the second, any supplier could in theory have been used (non-restrictive).

Tricky Words IV

- **Use and utilise:** A useful rule is to deploy the word 'use' when something is being 'used' for its natural or usual purpose, e.g. 'Water was used as solvent', and 'utilise' when something is being 'used' in an opportunistic or unusual manner, e.g. An unexpected absorbent property of the material was utilised to bind the free nucleotides.
- **'Split infinitives':** Although the casual use of split infinitives has increased inordinately in recent times, and its deliberate use is also sanctioned, formal writing is still most likely not to offend someone if the selected adverb is not placed between 'to' and its verb, e.g. To understand properly what is meant by this approach, one must master the equations underlying it (Don't say: To properly understand...).
- **'Dangling modifiers':** This happens when a word ending in '-ing' is detached (=left dangling) from the word to which it refers, and incorrectly made to refer to something else, e.g. Attempting to assess the extent of the conversion of the one compound to the other, the unreliability of the assay was the principal problem, instead of The principal problem in assessing the extent of conversion of the one compound into the other was the unreliability of the assay.

Tricky Words V

Indefinite expressions: These include ‘everyone’, ‘everybody’, ‘anybody’, ‘nobody’, ‘neither’ and a few others. They must be regarded as singular in formal writing, even though their use as plurals in everyday conversation and the media has become commonplace, e.g. Everyone wants a roof over their head; Nobody has ever lasted more than a few hours in the testing room; Neither the test compound nor its close analogue exerts any effects on this process.

General points when writing..

- **Use the active voice as often as possible, and the passive only when it is clearly better**
- **Be assertive rather than circumlocutory**
- **Use definite, specific concrete language**
- **Omit all unnecessary words**

Non-English first-language speakers..

- **It is important for Afrikaans first-language speakers to check every plural noun and associated verb for consistency, e.g. don't say: Rabbits is plentiful in this area, but rather Rabbits are plentiful in this area. Tenses must also be carefully checked at all times, as Afrikaans uses the present tense in many cases where the past tense is used in English.**
- **Speakers of African languages must be conscious at all times of the need to provide an article for each noun.**