How to write in English

1. Verbs

I Numbers and tenses

Verbs

Remember two important rules when you use verbs:

- 1. The number of subject determines the number of verb
- 2. Do not mix inconsistent tenses

Number

- When the subject is singular third person (she/he/it), the verb needs suffix -s (in the present, positive sentence). The auxiliary verbs have their own special forms (is, can, has, does).
- Be careful with special phrases:
 - "A number of new experiments were done" (plural)
 - "Plenty of time was spent..." (singular)
 - "A few data points belong to cluster X" (plural)
- Notice: when the subject is composed of a singular and a plural noun by "or" or "nor", the verb agrees with the noun that is closer.
- If the number of the subject changes, retain the verb in each clause.
 E.g. "The positions in a sequence were changed and the test rerun" →
 "The positions in the sequence were changed, and the test was rerun."

Tense

Tenses (temporal forms)

- Default: the present
- Past or present prefect (but not both) when you describe previous research (literature review)
- Past tense to describe the experiments and their results

- In scientific writing, the default is present (is). With present, you can combine perfect (has been) (and future, will be) if needed, but not the other tenses.
- Use past tense (was) only for good reasons. It expresses that something belongs to the past and has already finished. E.g. when you report your experiments.
- Past perfect (had been) is seldom needed. It is used, when you describe something in the past tense, and you refer to something which has happened before it. E.g.
 - "We tested the system with data which had been collected in *Program-ming 1* course."

Active or passive voice, which person?

Use of passive voice

- In active voice the actor is known, while in passive voice it is unknown.
- In the basic form of passive ("sg is done"), you can express also the actor ("sg is done by sy"). Expressing the actor is always more informative!
- It is often recommended to prefer active voice, but in scientific writing passive voice is sometimes convenient. It allows us to draw the reader's attention to the phenomenon or the event, instead of the actor. E.g. "The probabilities are updated by Bayes rule", "The values are recorded every minute", "The score is assessed on the basis of the training data.".

Use of passive voice

- Often the purpose determines the voice. Usually we want to begin with a familiar word and put the new information in the end. E.g. before an equation or a definition, we can say "The model is defined as follows.".
- However, do not overuse passive, and do not chain passive expressions.

 As a rule of thumb, use only one passive per sentence

Example

I shall always remember my first visit to Boston.

This is much better than

My first visit to Boston will always be remembered by me.

The latter sentence is less direct, less bold, and less concise. If the writer tries to make it more concise by omitting "by me,"

My first visit to Boston will always be remembered,

it becomes indefinite: is it the writer, or some person undisclosed, or the world at large, that will always remember this visit?

"It is" and "There is/are"

- A formal subject "it" is sometimes used in passive expressions: "It is often recommended [reference] that..."
- Typical verbs in this expression are: say, suppose, consider, expect.
- "There is/there are" is a similar expression, but now we don't need the
 passive. This expression is used when the real subject (what is somewhere) comes later and we haven't mentioned it before.
 - E.g. "There was only one outlier in the data set 1" v.s. "The outlier was in the data set 1."
- The verb is nearly always "be" (sometimes "exist" or something else)
- Notice that the verb follows the real subject's number. E.g. "There were a lot of outliers in the data set 1."

"It is" and "There is/are"

• "There is" expression is seldom needed in scientific writing, and often you can circumvent it:

"The data set 1 contained a lot of outliers."

Other passive expressions

- "We" can be used as passive. E.g. "In Chapter X, we define the basic concepts." However, it is better to say "The basic concepts are defined in Chapter X."
- "You" is sometimes used as passive, especially in manuals. Don't use it in scientific text!
- "People" when you refer generally to people. Quite a vague expression, not recommendable!

Person?

- Basic rule: avoid the first person (no opinions, but facts). However, sometimes we can use "we" as a passive expression. Problem: whom you are referring to, if you write alone?
- Referring to yourself: you can talk about "the author". E.g. "All programs have been implemented by the author." Notice that I don't guarantee that your supervisor likes this! Some supervisors prefer "I".
- Gender-neutral language: when you refer to an unknown user, student, etc. try to use gender-neutral language.

- The most common way is to say "she/he" or "he or she". Some authors are careful about the order of her/him, as well! E.g. you can use every second time "she or he" and every second time "he or she". Remember to put the other pronouns in the same order ("She/he tries her/his best")
- "One" is neutral, but sounds often awkward. "The learner can define one's own learning goals"
- Sometimes you can avoid the problem by using plural.

Other notes

- Do not use short forms "isn't, can't, doesn't", but "is it, cannot, does not".
- "be verb+ing" form when something is currently happening or takes some time. E.g. "Thread 2 can be started in the same time when thread 1 is still running"
- Some verbs require that the following verb is in -ing form:

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\{ \rm enjoy, \, avoid, \, succeed \, in, \, finish, \, keep, \, mind, \, practice, \, risk, \, continue \} + {\rm verb} \, + \, {\rm ing}
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E.g. "Students enjoyed learning new things"

"Continue splitting until criterion X has been reached."

• Similarly some phrases: "it is worth remarking that..."

A common fault is to use as the subject of a passive construction a noun which expresses the entire action, leaving to the verb no function beyond that of completing the sentence.

A survey of this region was made in 1900. This region was surveyed in 1900.

Mobilization of the army was rapidly carried out. The army was rapidly mobilized.

Confirmation of these reports cannot be obtained. These reports cannot be confirmed.