# The procedure to check your writings

# Grammar checking

## Procedure

1. Check if the first letter is capitalized.
2. Check if there are too many long sentences. We’d better use simple sentences.
3. Check if all sentences are complete. Usually, a sentence needs a verb and a subject and an object sometimes.
4. Check if there are too many sentences in passive voice. Normally, we recommend that we use active voice for 80% or more of verbs.
5. Check if all words are in correct spelling. We can use some tools to help us check spelling, such as MS Word.
6. Check if all nouns have correct singular or plural forms.

Examples:

* + Sensor: one sensor, two sensors, three sensors
  + Mice: one mouse, two mice, three mice
  + Fish: one fish, two fish, three fish
  + Water: one drop of water, two liters of water, three flasks of water

1. Check punctuations.
   * 1. Add a space after punctuation.
     2. Be careful for the use of comma. The book “The Elements of Style” mentioned many regulations of using commas, we should read it.

Examples:

* + The panda eats shoots and leaves. (Correct)
  + The panda eats, shoots and leaves. (Incorrect)

1. Check verbs.
   * 1. Find the right tense of each verb.
     2. Check every verb to see if the verb is consistent with its subject.

Examples:

* + There are many people who like playing table tennis in China. (Correct)
  + There are many people who likes playing table tennis in China. (Incorrect)

1. Check prepositions.

Collect every preposition in the essay to see if it is used corrected. If we are not sure about the usages of prepositions, we can check dictionaries or we can use this website (http://www.englishpage.com/prepositions/prepositions.html).

## Example

We use the above procedure to check this document.

# Logic Checking

## Procedure

1. Check if topic sentences are clear or not. Does every paragraph have a clear topic sentence?
2. When using many supportive examples, it is necessary to check if the examples can support its topic sentence or not. Make sure all examples are supportive.
3. Put all section titles into one paragraph to see if the titles can form a reasonable structure.

To see if the titles can make a smooth reasoning like a curve, see Step 5 for details and examples.

1. For each section, put all topic sentences of each paragraph into one paragraph to see if they can make a reasonable structure.

To see if the sentences can make a smooth reasoning like a curve, see Step 5 for details and examples.

1. For each paragraph,
   1. Write down all verbs of each sentence.
   2. Connect the verbs using directed lines representing the relations between verbs, such as causal relation, chronological order etc.
   3. Put name of the relations on the directed lines to point out the relations clearly.
   4. For each verb, we can add a subject and an object (if applicable).
   5. To check if the result graph has a clear logic reasoning line.

## Example

1. Starting with a paper, we check the paper title and each paragraph to make sure that the title is clear and all paragraphs have a topic sentence.
2. For each paragraph, we check all examples in the paper to see if they are really supportive. In the literature review part, we should pay more attention to check if the cited content can support the topic sentence.
3. Put all section titles into one paragraph:

|  |
| --- |
| Evaluation of Intellectual Property (IP) Leakage Caused by Inference: a Rule Based and Application Oriented Approach  1. Introduction  2. Research methodology  2.1. EBD and ROM  2.2. Reverse design in collaborative development environment  2.3. Risk analysis    3. Case study  3.1. Reverse design at conceptual design level  3.2. Reverse design at parameter design level  3.2.1. The rule executor model  3.2.2. Parameter inference of natural gas dryer    4. Conclusion |

And then we check if the article structure is reasonable.

1. For each section, put all topic sentences of each paragraph into one paragraph to see if they can make a reasonable structure.

The topic sentences in first section are:

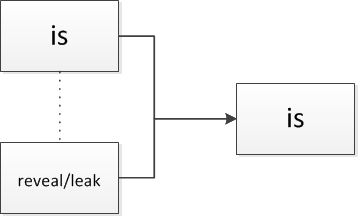
|  |
| --- |
| As a result, how to protect IP in a collaborative product development environment is of critical significance for manufacturers' success. |

1. Analyze each paragraph

Take one paragraph as an example:

“IP is one of most important competences for manufacturers. However, confidential IP might be revealed or leaked unintentionally to an unauthorized party in different situations in collaborative processes, which will damage manufacturers' competence and cause losses to them. As a result, how to protect IP in a collaborative product development environment is of critical significance for manufacturers' success.”.

Then we do the procedure as follows:

* Get all verbs: is, reveal/leak, is
* Connect the verbs:
* Put the name for relations: 
* Add subjects and objects for all verbs: 
* From the graph, it looks like the structure of paragraph has smooth logic. Of course, we still need to check the logic reasoning from semantics level besides of the graph shape.