

Report Writing: Editing the Writing in the Final Draft

1. Organisation within each section of the report

Check that you have used signposting to tell the reader how your text is structured

At the beginning of sections, use forecasting statements which indicate what information follows; use headings in the body of the report which are important in establishing the hierarchy of ideas in the whole text.

Example 1:

4.3. Vortex Breakdown in Swirling Jet Flows.

This section explores some of the theoretical considerations associated with vortex breakdown occurring in swirling jets.

Example 2:

2.1 Advantages of Classifier Systems

In this section, the three advantages of classifier systems are described.

Check that the ideas in each section are developed clearly and logically

If you write a one-sentence summary of the idea of each paragraph, do these ideas connect?

Check the links between your paragraphs.

Is the logical connection clear between each paragraph?

Check that each paragraph

- has **one** main idea
- has a clear topic sentence that states the **topic** of the paragraph
- **flows well**.

2. Writing style, grammar and punctuation

For more information about the academic writing style used in Engineering reports, go to the resource on improving scientific writing style available at:

<http://www.eng.monash.edu.au/current-students/download/improving-scientific-writing-style.pdf>

Check that your writing is formal enough

Your final report needs to be written in formal academic style. Choose precise scientific expressions, and avoid slang, too many personal pronouns (I/we) and informal contractions (isn't, didn't, they're etc).

Check your sentences

Incomplete sentence

Several factors need to be considered. For example, which attributes relate to the problem.

Run-on sentence

The machine ability to replicate the human capacity for understanding is critical to expert systems, however efficiency is lost when responsibility for solving the information bottleneck is shared between human experts and learning algorithms.

Problems of Parallel Structure

Inputs into the 1D3 algorithm include:

- *the goal concept to be learned*
- *how the goal concept and approximators are defined in a data set*
- *measures of uncertainty are used whose local minimal help define the decision tree*

Check your verbs

Subject-Verb agreement missing:

An expert system provide a means of capturing existing expertise. It allow the user to distribute and actively apply the knowledge contained within the system.

Tense/tense sequence incorrect:

1. *The company recognised the problem and then it attempts to solve it. (From a Results Section of a thesis)*
2. *However, in the past, the system achieves poor results.*

Verb form incorrect:

The eventual conditions in the model have not appear to be representative of the intended platoon flows in the system.

Check your grammar

Article missing or incorrect:

Knowledge base stores application-specific reasoning knowledge about a particular domain.

Noun countability problems:

1. *Computers are complex device.*
2. *Researches (in formations) suggest that the problem cannot be rectified without innovations in technology.*

Check your spelling!

Check your punctuation

Avoid random apostrophes, commas and dashes!

Test Your Editing Skills (1)

Using parallel form

Exercise 1: Rewrite the last two bullet points using the grammatical structure of the first two points.

Recommendations for Further Work

- Investigate half models using thermal transient analysis.
- Vary the number of points used to define the spine.
- Parametric curve – vary the coefficients instead of the points.
- Full-scale testing of optimized profile.

Exercise 2: Improve this sentence using parallel form in the underlined phrase.

The relative importance of certain parameters, such as the use of potassium hydroxide impregnation and using oxalic acid in hydrothermal treatment, was studied qualitatively.

Singular or plural verbs

Exercise 3: Underline the correct verb in the brackets in the following sentences. The correct verb agrees in number (ie. is singular or plural) with its subject.

1. Minor fluctuations in volumetric flow rates (**account/ accounts**) for the difference between the responses.
2. The difference between the two values calculated using the two different methods (**was/ were**) large.
3. Partridge (1986) (**investigate/ investigates**) the nature of knowledge-based system as incompletely specified functions.
4. This section (**discuss/ discusses**) the importance of this new technology for developing better solutions.

Spelling

Exercise 4: Underline the correct word in the brackets in the following sentences.

1. The flow rate, V_3 , may have varied slightly and thus may have (**affected/ effected**) the results.
2. The (**affect/ effect**) is used to produce the mixing of the fluid.
3. Three different sized spheres and two non-spherical particles were dropped and (**their/ there**) fall velocities were measured.
4. The researchers found that the inaccuracies in the titration procedure (**lead/ led**) to the experimental errors.
5. The results were (**dependant/ dependent**) on the different reactor configurations.
6. The rotameter measured a maximum of 16.7 on (**it's/ its**) scale.

Test Your Editing Skills (2)

Exercise 1

The following example is drawn from a research paper in the Computing field. It contains various minor errors and/or stylistic problems. Look for grammatical errors, misspellings, omissions, etc. There are approximately 13 errors.

CONCLUSION

As yet there is no single criteria for judging any system development methodology. What is available however, is a checklist of the requirements and features that a methodology ought to have.

The emphasise on the notion of "structure" in the various methodology stems from concerns in the following areas:

- the need to increase productivity to cope with increasing backlog of applications
- large, complex systems are partitioned into smaller, more manageable chunks
- project management is ineffective

Although structured analysis in its present form have come a long way towards addressing some of the concerns and requirements outlined above, it does not exhibit all the features that an "ideal" methodology should have. According to Yourdon, the methodology should provide for automated support tools in the following areas:

- graphics support to compose and alter their graphical models on the CRT and perhaps to look at the high level model side by side with the lower level model through multi-windows for example.

Answers: Test Your Editing Skills (1)

Using parallel form

Exercise 1:

Recommendations for Further Work

- Investigate half models using thermal transient analysis.
- Vary the number of points used to define the spine.
- Vary the coefficients instead of the points in the parametric curve.
- Test the optimized profile in a full-scale test.

Exercise 2:

The relative importance of certain parameters, such as the use of potassium hydroxide impregnation and the use of oxalic acid in hydrothermal treatment, was studied qualitatively.

Singular or plural verbs

Exercise 3:

1. Minor fluctuations in volumetric flow rates **account** for the difference between the responses.
2. The difference between the two values calculated using the two different methods **was** large.
3. Partridge (1986) **investigates** the nature of knowledge-based system as incompletely specified functions.
4. This section **discusses** the importance of this new technology for developing better solutions.

Spelling

Exercise 4:

1. The flow rate, V_3 , may have varied slightly and thus may have **affected** the results.
2. The **affect** is used to produce the mixing of the fluid.
3. Three different sized spheres and two non-spherical particles were dropped and **their** fall velocities were measured.
4. The researchers found that the inaccuracies in the titration procedure **led** to the experimental errors.
5. The results were **dependent** on the different reactor configurations.
6. The rotameter measured a maximum of 16.7 on **its** scale.

Answers: Test Your Editing Skills (2)

Exercise 1

CONCLUSION

As yet there is no single **criterion** for judging any system development methodology. What is available, however, is a checklist of the requirements and features that a methodology ought to have.

The emphasise on the notion of “structure” in the various **methodologies** stems from concerns in the following areas:

- the need to increase productivity to cope with **the** increasing backlog of applications
- **the partitioning of** large, complex systems ~~are partitioned~~ into smaller, more manageable chunks
- **the need for effective** project management, ~~is ineffective~~

Although structured analysis in its present form **has improved considerably in how it addresses** ~~have come a long way towards addressing~~ some of the concerns and requirements outlined above, it does not **yet** exhibit all the features that an “ideal” methodology should have. According to Yourdon (**1999**), the methodology should provide for automated support tools in the following areas:

- ~~graphics support~~ **the capacity** to compose and alter ~~their~~ graphical models on the CRT.
- ~~and perhaps~~ **the ability** to look at the **higher** level model side by side with the lower level model through **Multi-Windows**. ~~for example.~~