

COS10025

Technology in an Indigenous Context Project

Professional Writing

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Swinburne
►think **forward**

Acknowledgement of Country



Content

- The Basics of Writing
- Audience & Message
- The Mechanics: Structure, Tone, etc.
- Referencing (In-text Citation)





Writing – The Basics, Audience & Message

Writing for IT / Engineering Professionals

Why do engineers / IT professionals write reports, articles, books?

- To convey information
- To present an opinion
- To persuade others

Things to consider when writing:

- Audience, Message, Structure/Style, Tone

The Audience & Message

The message can vary depending on the audience:

Assessors – workshop facilitators, project supervisors

Expert audience – researchers, industry professionals

Non-expert audience – clients, community representatives

The audience determines the message, the type of language, the level of detail, etc.

The Audience & Message

You should consider:

- The level of knowledge the audience has
- The position of the audience with respect to you
- The audience's perspective(s)
- What's the end goal? (to inform, demonstrate, persuade)



The Mechanics & Structure of Writing

Writing Structure: Technical Report

- Always plan before starting
- Structure might vary with audience / assessments
- Break down sections into subsections

Title Page
Abstract
Table of Content
Introduction
Literature Review
Design Approach
Project / Risk Management
Design / Project Outcome
Discussion / Conclusion
Acknowledgements
References
Appendices

Balancing information in a report

- Bulk of paper should be in middle sections
- Example: for a 10 page report:
 - 1-1.5 page introduction
 - 2-4 pages background / literature review
 - 1-1.5 pages methodology
 - 2-2.5 pages design / project outcome / discussion
 - 0.5-1.0 pages conclusion
- In addition to other pages (cover page, abstract, table of content, references, etc.)

The Power of the Paragraph

Every paragraph should have:

Topic sentence – stating the main idea of the paragraph

Explanation – further explanation of the idea / concept

Evidence – cite references from experts as evidence

Linking sentence – to the next paragraph

(Wallace, 2021)

Setting up paragraphs (Examples)

Table 1

A review of the findings in previous studies on the effects of various factors on pedestrian injury severities.

Variables	Major findings
<i>Pedestrian features</i>	
Age	Overall, in pedestrian-involved crashes, elderly pedestrians suffer more severe injuries (Abay, 2013; Chen and Fan, 2019a; Forbes and Habib, 2015; Liu et al., 2019; Prato et al., 2018; Sasidharan and Menéndez, 2014; Tay et al., 2011; Zhai et al., 2019) while young pedestrians and children are mainly linked with less severe injuries (Haleem et al., 2015; Pour-Rouholamin and Zhou, 2016). This could be attributable to the physical condition of the elderly pedestrian who are more vulnerable to incoming forces.
Gender	Contradicting observations have been reported in the literature regarding the injury severity of male and female pedestrians. While some studies attributed male pedestrians with more severe injuries (Abay, 2013; Behnood and Mannering, 2016; Chen and Fan, 2019a; Tarko and Azam, 2011; Tay et al., 2011), some others found females to be linked with more severe injuries (Forbes and Habib, 2015; Noh et al., 2018).
Alcohol and drug usage	It has been widely reported that pedestrians under the influence of drugs/alcohol are linked with more severe injuries (Abay, 2013; Behnood and Mannering, 2016; Lee and Abdel-Aty, 2005; Prato et al., 2018).

Striking the correct tone in your writing

- Have one idea per paragraph and one topic per section
- Have a simple and logical organization
- Use short sentences with simple structure
- Keep paragraphs short, but not too short
- Avoid excess, in length or style
- Avoid buzzwords and slangs
- Omit any unnecessary material
- Be specific, not vague or abstract



Referencing

Referencing

- The practice of acknowledging sources where information was extracted.
- There are two parts to standard referencing:
 - In-text citation
 - List of references at the end of the article
- Referencing Guides
 - Harvard
 - IEEE
 - APA

In-text Citation

When citing an author or authors as part of a sentence:

- Gleaves's (1996, p. 54) categorical rejection of SCM...
- Gleaves's [1] categorical rejection of SCM...
- (Gleaves's 1996, p.54) categorical rejection... (**WRONG**)

When the author is not part of the sentence:

- SCM has been rejected... (Gleaves, 1996, p.54).
- SCM has been rejected... [1].

In-text Citation

When citing multiple authors

- Always present the names as they appear in the article
- For 1-2 authors, all names must be cited each time
- For 3-5 authors, all names must be cited the first time, but subsequent references cite only the first name with “et al.”
- For 6 or more authors, the “et al.” form can be used for all in-text citations

In-text Citation

When citing multiple authors as part of a sentence:

- Davidson, Woodbury, Pelton & Krishna (1988) used grade of membership analyses...
- Davidson, Woodbury, Pelton & Krishna [2] used grade of membership analyses...
- Davidson et al. (1988) used grade of membership analyses...
- Davidson et al. [2] used grade of membership analyses...

In-text Citation

- If many sources address the same point, they can all be included in a single citation.
- The list is often arranged in alphabetical order (the first author's last name), with a semi-colon to separate each source.
- Some guides will arrange the list by year of publication, and then alphabetically (check your guide)
- Example: Across a number of studies (Boon & Draijer, 1993; Dell, 1998; Tutkun et al., 1998), the proportion of...

In-text Citation (Examples)

Table 1

A review of the findings in previous studies on the effects of various factors on pedestrian injury severities.

Variables	Major findings
Driver attributes	
Age	A considerable number of studies have reported that elderly drivers are less likely to cause more serious injuries (Prato et al., 2018; Tay et al., 2011). Nevertheless, there are also studies where elderly drivers (aged 55 and over) have been found to increase pedestrian injury severities (Forbes and Habib, 2015). It should also be noted that teen drivers (15<= age <=19) are more probable than adult drivers (age>=19) to cause severe injury (Xin et al., 2017).
Gender	Several studies have reported that, in pedestrian-vehicle crashes, male drivers are linked with higher chance of severe injuries and fatalities (Forbes and Habib, 2015; Mohamed et al., 2013; Prato et al., 2018) while female drivers are linked with lower chance of severe injuries (Tay et al., 2011; Wang et al., 2017). Opposite findings have also reported in some studies. For example, Chen and Fan (2019a) found that in pedestrian-vehicle collisions, female drivers raised the chance of fatal injuries.
Alcohol and drug usage	Intoxicated and drunk drivers are linked with higher possibility of more severe injuries in pedestrian-vehicle crashes (Abay, 2013; Chen and Fan, 2019a; Kim et al., 2008; Mohamed et al., 2013; Moudon et al., 2011).

Secondary Referencing

- Never cite a source that you have not read!
- To refer to a source cited by one of your readings, use “as cited in”:
 - Ross (as cited in Lilienfeld et al., 1999, p. 59) affirms...

Takeaways

1. Think about your message and your audience
 - What do they need / want to know?
2. Plan your writing!
3. Always create a draft, and get feedback if possible
4. Always acknowledge help and ideas from others

Further Reading

- Breach, M. (2009). *Dissertation Writing for Engineers & Scientists*, Pearson, Harlow England.
- Zobel, J. (2014). Writing for Computer Science, Springer, Berlin.

Acknowledgements

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Seminar (Week 04)