

Concise Writing & the Technical Research Report

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The Research Report

The research report should:

- Provide a unique perspective
- Evaluate other perspectives or research
- Integrate current research into your own critical analysis
- Use primary and secondary research to provide plausibility and credibility to your perspective

The Research Report

The research report should not:

- Provide a simple summary of other's work
- Provide the reader with your opinion(s)
- Make unsupported assertions
- Leave your reader guessing as to why they are reading the report

Consider Your Audience

Make reading as easy as possible:

- Provide context
- Use plain language
- Avoid jargon and acronyms
- Interpret your findings

Have a Purpose

- Communicate your purpose clearly
- Provide a focus
- Communicate your objective in each section of text
- Use plain and concise language to achieve these goals

Elements of the Report

- Abstract
- Introduction
- Body
- Conclusion

Report Body

The report body should:

- Make the argument
- Provide specific context
- Communicate the findings/main point of the report in detail
- Remain focused throughout

Report Body

Each section

- Must have a clear focus
- Must begin with the main idea
- Must have a clear transition to the next section

Each paragraph

- Must have a clear focus
- Must begin with the main idea
- Must have a clear transition to the next section

Report Body: Using Sources

Using primary and secondary sources:

- Creates a context for your perspective
- Lends credibility to your perspective
- Provides credibility to the paper as a whole
- Makes you an expert

Report Body: Using Sources

- **A paraphrase is...**
- your own rendition of essential information and ideas expressed by someone else, presented in a new form.
- one legitimate way (when accompanied by accurate documentation) to borrow from a source.
- a more detailed restatement than a summary, which focuses concisely on a single main idea.

Report Body: Integrating Sources

The Intel Core Duo is a faster processor than the Intel Xeo.

In 2008, a Stanford team evaluated the run time of nine comparable CPUs while each CPU ran a minimum of ten concurrent applications, and found the Intel Core Duo ran at a consistently faster speed than the Intel Xeo [3].

Active Voice

The American Concrete Institute recommends the technique.

Passive Voice

The ^O technique ^V is being recommended by the ^S ACI.

Concise Writing: An Example

The goal in secret key sharing is a high level of covariance. This is prevented when there lies within the signal high correlation of the RSS data channels.

Secure secret key sharing requires a high level of covariance in the transmitting signal. A high correlation of the RSS data channels within the transmission signal prevents covariance.

Concise Writing: Get the Lard Out!

1. An evaluation of the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures for use in concrete pavements was undertaken and is presented in this paper. (36 words! FAT!)
2. This paper evaluates the effect of Class C fly ash and ground granulated blast furnace slag (GGBFS) on the properties of ternary mixtures in concrete pavements. (26 words! LEAN!)

Lard content of sentence 1: $26/36 = 28\%$ less

Questions?

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Abstract

The abstract should communicate:

- The purpose of the paper
- The findings of the paper
- Why the research/subject is important
- Be concise and be brief: 150 words maximum

Introduction

The introduction should:

- Communicate the research topic
- Provide general context
- Communicate the goals/purpose of the paper
- Provide a brief outline for the reader

Conclusion

Your conclusion should:

- Restate the project goals
- Summarize the results of the project
- Examine the project objective in light of results
- Analyze and explain any unexpected findings
- Provide the significance of research results