

Successful Technical Writing Strategies

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Overview

- Getting Started
- Developing a Strategy
- Finding and Using References
- The Review Process
- Some Proposal Hints
- Where to Get Help

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You should begin the writing process by analyzing your constraints

Audience

Characteristics and Global Distribution of Pixie Dust and Its Isomers

Who they are
What they know
Why they will read
How they will read

Occasion

Format
Formality
Politics and ethics
Process and deadline

Purpose

To inform
To persuade

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Using Different Strategies to Get Started

- Freewriting
 - Make lists
 - Scribble ideas as they form
 - Draw pictures, graphs, webs
 - No rules, just ideas
- Informal and Formal Outlines
 - The more you've done on your proposal/paper, the more detailed your outline
 - Can be used to organize ideas and research

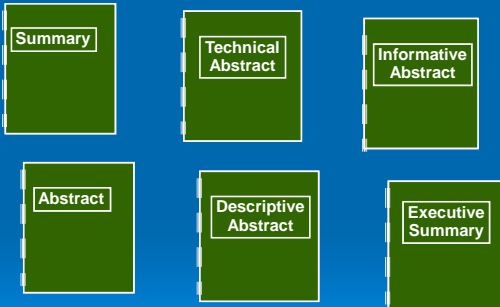
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Follow the format that is expected or required for the situation



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Depending on dictated format, several names for summaries exist



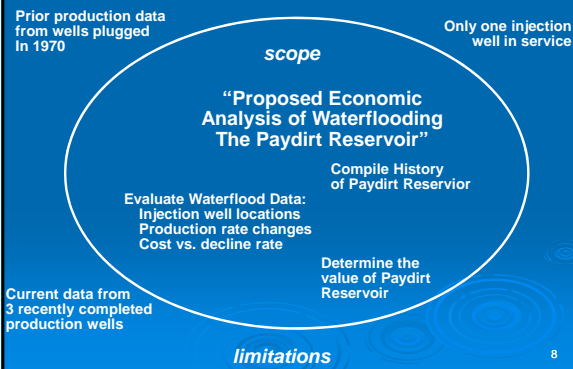
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Executive Summary or Abstract

- This is a stand-alone document.
- It is complete without the report, and the report is complete without it.
- It does **not** refer to any tables, figures, exhibits, or appendices that are in the report/proposal.
- It contains **all** important points of the report.
- It contains nothing that is **not** presented in the report/proposal.
- Don't do this hastily, it may be the most important single part of the your work.

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The introduction defines the scope and limitations of the work



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Organization is hidden when headings occur in long list without secondary headings

| Performance of the Solar One Receiver | Performance of the Solar One Receiver |
|---------------------------------------|---------------------------------------|
| Introduction | Introduction |
| Steady State Efficiency | Receiver's Efficiency |
| Average Efficiency | Steady State Efficiency |
| Start-Up Time | Average Efficiency |
| Operation Time | Receiver's Operation Cycle |
| Operation During Cloud Transients | Start-Up Time |
| Panel Mechanical Supports | Operation Time |
| Tube Leaks | Operation During Cloud Transients |
| Conclusion | Receiver's Mechanical Wear |
| | Panel Mechanical Supports |
| | Tube Leaks |
| | Conclusion |

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You should introduce and explain ALL illustrations in the text



Figure 7. Title of figure. Some formats allow you extra sentences to explain unusual details.

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Wordiness – Get to the Point!

(Elegant phrases may work well in English literature; not in technical reports)

A good engineer would not design equipment with unnecessary parts.

Why would that same engineer produce a document with lots of unnecessary words?

Similar to that unnecessary part, the unnecessary word may cause some confusion for the user (reader).

[See Handout Tip Sheet on Active versus Passive Voice]

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Complex wording buries ideas

This study will compare recent waterflood well data to historical production rates in order to estimate the current market value of the Paydirt Reservoir.



The goal of this study is to develop a commercially viable analytical model correlating Paydirt historical production data to contemporary production from newly drilled wells undergoing production declines while influenced by an active water injection well to approximate its economic position in the current market environment.

Active versus Passive Voice in Technical Writing

Passive Voice: The treatment system *was designed* by the engineer.

Active Voice: The engineer *designed* the treatment system.

- Most sentences in a technical report should be in the active voice.
- Unless there is a good reason to use the passive voice.
- Mixing active and passive voice in writing confuses readers.

[See Handout Tip Sheet on Excessive Words in Writing]

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Should we flush it out? (or should we “flesh” it out?)

We frequently encounter words or phrases that we’re not sure are appropriate for the occasion.

A good source to help you with this is:

<http://www.wsu.edu/~brians/errors/flesh.html>

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Avoiding Common Errors of Punctuation

Punctuation marks are the traffic signs and signals placed along the reader’s road. They tell him when to slow down and when to stop, and sometimes they warn him of the nature of the road ahead. **Traffic engineers do not always agree on what signs should be used and where they should be placed,** and neither do writers or editors.

Theodore M. Bernstein
The Careful Writer

Find a Good Style Guide and Use it!

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Library Resources

Locating, differentiating, using, referencing

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Finding useful resources

- Library website <http://www.lib.lsu.edu>
- Library Catalog (use WorldCat Local)
- Subject Guides
- Indexes & Databases
 - Alphabetical listing
 - By Topic
 - Open Access databases
- Journalfind (electronic journals)
- Webfeat (search multiple databases)

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Which database is best?

- Background information (historical & recent)
- Related information (similar & relevant)
- Boolean capable (multiple terms)
- Filterable result sets (limiting, sorting, ranking)
- Exportable (selectable formats)
- Save search strategies
- Email, tagging (bookmarking)

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Using Library Resources

- PAWS ID & password (LSU affiliate)
- On campus/off campus
- Other resources (style guides, reviews, search engines, weather, etc.)
- More (directions, hours, study rooms, staff listing)

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Referencing Information

- Style Guides (MLA, APA, Oxford, Chicago, etc.)
- <http://www.bartleby.com/141/index.html>
- <http://www.dianahacker.com/resdoc/>
- <http://owl.english.purdue.edu/owl/>
- Bibliographic support
 - EndNote, <http://www.myendnoteweb.com>
 - RefWorks, <https://www.refworks.com/>

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When you cannot find it

- Contact the LSU Engineering Librarian
 - Will Hires, whires1@lsu.edu
 - Room 141, Middleton Library
 - 225-578-8264
- InterLibrary Borrowing
- Google
 - Web search
 - Books
 - Scholar

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Now That You Think It's Complete: Employ a Review Process

- Use a consistent and comprehensive process
 - Verify data accuracy before reading for content
 - Critically challenge findings, conclusions, and recommendations
- Exercise care in looking for common errors

Pride of authorship is a dual-edged weapon.

While it is commendable to have pride in a written product, it can be counterproductive if that pride blinds the writer to valid critical edits.

[See Handout Tip Sheet on Reviewing and Editing]

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Some Hints for Proposals

- **Stop!** Don't invest your time until you know exactly what the solicitation requires
- Read the solicitation carefully, and outline what is required for submission
- Consider contacting the sponsoring agency; you may learn important information

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So You Tried Your Best Shot But Didn't Win or Get Funded!

- Most agencies have a process that lets you know how your proposal compared and what were its shortcomings
- Contact the agency:
 - Don't be defensive
 - Identify what they would have preferred
 - Let them know you're persistent and want to be a part of their team

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"Tips for Better Writing"

One or two page tip sheets to help guide you through writing:

- "Good Practices for Writing Technical Reports"
- "Writing the Executive Summary"
- "Active versus Passive Voice"
- "Don't Let Excessive Words Obscure Meaning"
- "Reviewing and Editing Written Work"



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Help!

Writing help is available on campus:

[Writing Center](#) – By appointment

[Grammar Garage](#) - Online

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Some Final Thoughts

- We've covered a lot of information in a short period of time
- Writing is a "process" with many requirements; a good style guide will help you negotiate the journey
- The LSU Libraries is a valuable resource
- Other help is available on campus

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