

English Technical Writing

Gerry Rau
Fall 2023 (112-1)
Class 11

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Feedback

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Feedback

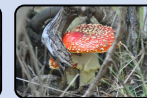
- There is something I cannot clearly understand about the exercise.
 - What is it? I cannot answer if I do not know the question.

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Principles of Writing



Writing in Stages



Avoiding Plagiarism



Brainstorming and Linearizing



Work time and Assignment

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Writing in Stages

Section 18.1



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Once upon a time ...

"Cacao Tree" (World Bk. /v. 3 /p.518)

- tropical tree \approx 25 ft high
- 20° N + S of equator
- produces leaves/fruit/flowers all year
- flowers in clusters \rightarrow pods of cacao beans
- ripe pods - red, yellow, golden, pale green or brown
- 20-40 almond-shaped beans / pod

- Writer: 1 person
- Audience: 1 person



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... and they all lived happily ever after

- “Writers”:
 - You
 - Advisor
 - Other coauthors
 - Reviewers
 - Editor
- Audience
 - Hundreds or thousands of people



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Writing in stages: overview

- Prewrite
 - Brainstorming – getting ideas
 - Linearizing – getting the ideas in order
 - Topic sentences – getting the paragraphs in order
- Write as you go
 - Write as you do the work
- Rewrite in stages
 - 7 Cs of change
 - Rewrite at least 3 times

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Prewriting

Section 18.2

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Why Prewrite?

- Rewriting essential
 - Reduce scale of rewriting
- Overcome writers block

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Like a puzzle



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Write as you go

Section 18.3

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Ease of Writing

- Which divisions of an article are easier to write?
 - Describing what you did (Process/Method)
 - Overall summary (Conclusion) – once everything is done
- Which divisions of an article are harder to write?
 - Describing what others did (Introduction)
 - Analysis (Testing/Results and Discussion)

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Order of Writing

Abstract

Introduction

Method/Process

Testing Method

Results: Data

Discussion: Comparison, Evaluation

Conclusion

References etc.

7: Why should someone follow you?

4: Where are you going?

1: Write as you go

2: Write as you go

3: Write as you go

5: Did you get there?


6: Where did you get to?

8: How did you get here?

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Heeding the Muse

- Greek goddesses of the arts (including writing)
- Always ready to make notes
 - Something to write on
 - Two files open as you write



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7 Cs of Change

Section 18.4

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Writing vs. Rewriting

- How much of the first version of a paper is unchanged in the final version?
- Like artist doing a painting
 - Base layer, main elements, details, revise




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7 Cs of Change

| Type of Change | 7Cs | Purpose | Level | Scope |
|----------------|---------------|---------------|-----------|-------------|
| Rewriting | Coherence | Organization | Paragraph | Section |
| | Conciseness | | Sentence | |
| | Connection | Clarification | Sentence | |
| Revising | Connotation | | Words | Whole paper |
| | Consistency | Finalization | Words | |
| | Correctness | | Format | |
| | Collaboration | | All | |

Seven Seas



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Do it right the first time

Section 18.5

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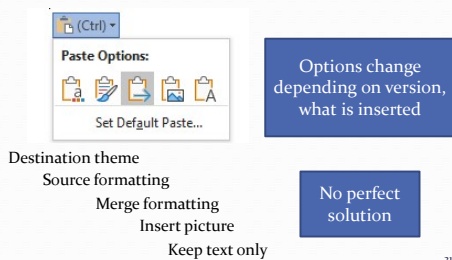
Problem: Different font

- Sometimes I get documents to edit like this , which “wastes a lot of time”. So I am less likely to spend time on the important corrections (Rau 2012) .
- Different font
 - Probably pasted in from elsewhere

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Solution: Copy/paste selection

- If you paste from another document
 - Click on clipboard icon



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No Perfect Solution

- “Keep text only”
 - Matches font, font size, line spacing (Chinese/English)
 - Loses bold, italic, underlining
- “Merge formatting”
 - Matches font
 - Keeps bold, italic, underlining
 - Keeps font size, line spacing of original

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Solution: Later fix

- Recopy and paste
 - Select
 - Cut, immediately paste back in
 - Select “match destination”
- Select all
 - Choose font and font size
- Format painter
 - Does not fix all problems, but will fix font/size

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Problems: Chinese input

- Sometimes I get documents to edit like this , which “wastes a lot of time”. So I am less likely to spend time on the important corrections (Rau 2012) .
- Chinese punctuation
 - Takes full character box size space
 - May show as English or Chinese font
- Chinese parenthesis
 - Takes full character space
 - No space after previous word

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Solution: Proper input

- Make sure you are set for full English
 - English input, English font
 - Not typing alphabetical in Chinese font
 - English grammar/spell checker
- Set up an English document template

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Problems: Order and space

- Sometimes I get documents to edit like this , which “wastes a lot of time.” So I am less likely to spend time on the important corrections (Rau 2012).
- Punctuation outside quote
 - Proper in British usage, not in American
- Two spaces after period
 - Expected format in 1970s, not now
- Space inside or outside parenthesis
 - Makes it look like Chinese

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Solution: Learn the rules

- Period or comma within quotes: “the end.”
- Single space after period between sentences
- Parentheses: Format (like this).
 - One space before
 - No space within
 - No space before punctuation

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Problem: Wasted time

- Sometimes I get documents to edit like this , which “wastes a lot of time.” So I am less likely to spend time on the important corrections (Rau 2012).
- Sometimes I get documents to edit like this, which “wastes a lot of time.” So I am less likely to spend time on the important corrections (Rau 2012).

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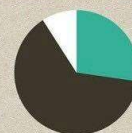
Just do it

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How writing works

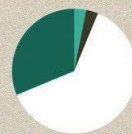
Same could be said for academic writing

HOW ASPIRING AUTHORS THINK NOVEL WRITING WORKS



Inspiration
Writing the first draft
Editing

HOW WRITING A NOVEL ACTUALLY WORKS



Inspiration
Writing the first draft
Editing
Wishing you'd never started the damn thing

See more at www.oodb.com

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Being a writer

You figure out what to write by writing

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Just do it!

“Do plumbers get plumber's block? What would you think of a plumber who used that as an excuse not to do any work that day? The fact is that writing is hard work, and sometimes you don't want to do it, and you can't think of what to write next, and you're fed up with the whole damn business. Do you think plumbers don't feel like that about their work from time to time?”

Philip Pullman

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Plagiarism

Section 18.6

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Culture and Plagiarism

- Chinese culture
 - Teacher is the expert
 - Exact quotes are the right answer
- Western/American culture
 - Think independently
 - Exact quotes are plagiarism if no citation
- Academic culture
 - Plagiarism by students = failed
 - Plagiarism by professors = fired

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What counts as plagiarism?

Table 18.2 Examples of plagiarism and non-plagiarism

| Modification | Swales & Feak (2004: 173) | Plagiarism or not? |
|---------------------------|---|---|
| Substituting | “Copying a paragraph making only small changes, such as replacing a few verbs or adjectives with synonyms.” | Copying a paragraph, but making a few minor changes, like changing some of the verbs or replacing adjectives with other words meaning the same thing. |
| Reordering | “Cutting and pasting a paragraph by using the sentences of the original but leaving one or two out, or by putting one or two sentences in a different order.” | Putting one or two sentences in a different order, or leaving one or two out, but basically cutting and pasting a paragraph from the original. |
| Rewriting | “Composing a paragraph by taking short standard phrases from a number of sources and putting them together with some words of your own.” | If all the authors in your field use the same standard phrases, you will need to use them as well, but by putting them in the context of your own work you make them your own. |
| Paraphrasing or Expanding | “Paraphrasing a paragraph by rewriting with substantial changes in language and organization, amount of detail, and examples.” | If you totally reorganize a paragraph, making it longer by adding examples as I have to the categories suggested by Swales & Feak (2004) or summarizing points to make it shorter, this is considered paraphrasing. |

Adapted from Swales & Feak 2004*

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Metaphor

- Same contents, different container – looks different
- Cannot copy the container
- Must be honest about source of the contents

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Avoiding plagiarism

- Read (at least 2x)
- Set aside and write notes, key words only
- At least 2 hours later, write paraphrase
- Revise, revise, revise
(organization, clarification, correction)

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Plagiarism

- https://www.youtube.com/watch?v=olNFgj8g7O4&list=PLQn99bzkjv9zeKq_FnLK9oQcyKALWtaoz&index=36
- MOOC 9d 0:13-2:44, 7:33-10:15

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Plagiarism

- AI cannot be cited as a source
 - No responsibility
- AI can help you improve your writing
 - Do not use it to write for you

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Copilot
Another AI tool

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Adding the Base Layer: Brainstorming

Section 19.3



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Goal

- Get as many ideas on paper (computer) as possible
- Find a method that works for you
- Assumes you have done some research
 - Need some understanding of the topic
 - Otherwise there is nothing in your brain to put on paper

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Brainstorming (Exercise 19.2.1)

- For each component you need to include List what you know:
 - Related ideas (words or phrases)
 - 1) Why is your work important – to society, your field?
 - 2) What has been done already, what problems?
 - 3) What is the goal of your research?
 - ... [same for other divisions]
 - Related papers
 - What past research is related to that component?

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Planning (Exercise 19.2.2)

- Make a plan
 - What components/sections can you start writing now?
 - E.g. Process, Introduction
 - What do you need to wait until later?
 - E.g. Testing, Conclusion

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Placing the Main Elements: Linearizing

Section 19.4

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Presentations

| | | |
|-------|--|----------|
| 11/14 | Planning your writing (Ch 10, 19.1-2) Exercise 19.1 Argument structure outline | Charles |
| 11/21 | Brainstorming and linearizing (Ch 18, 19.3-4) Exercise 19.3 Topic sentence outline | Tran |
| 11/28 | Writing and organizing (Ch 20, 21) Exercise 21.1, 2 Coherence and conciseness | Neo |
| 12/5 | Clarifying your argument (Ch 22) Exercises 21.1, 2, 3 Connection and connotation | Hai |
| 12/12 | Final revision and final parts (Ch 23, 26.1-3) Exercises 26.1, 3 Abstract and title | Charleen |

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Exercise 19.3

| Div. | Section Title | Length (Words) | Paragraphs/Components | Citation | |
|--------------------|------------------------|----------------|--|----------|-----|
| I | 1 Introduction | 800-1000 | 1 1a, 1b | 1 | |
| | | | 2 2b | 5-10 | |
| | | | 1 3b | - | |
| | | | 1 Org. | - | |
| P | 2 Design of the System | 1500-2500 | 2 4c | 1-5 | |
| | | | 2-1 Related Work | - | |
| | | | 2-2 Design of the Passive Magnetic Bearing | 10 5c | 1-5 |
| | | | 2-3 Design of the Active Magnetic Bearing | 10 5c | 1-5 |
| | | | 2-4 Design of the Motor | 8 5c | 1-5 |
| 3 "Control Method" | 1500-2000 | 12 5d | 5 | | |
| T | 4 Simulation | 1000-2000 | 1 6a | - | |
| | | | 3 7a | - | |
| | | | 3 8d, 8c | 1-5 | |
| | | | 3 9a | - | |
| C | 5 Conclusions | 100-300 | 1 10a, b | - | |

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Exercise 19.3

Para. 1
 "The importance of the magnetic bearing has been significantly increased during this few decades because it can store more energy and cause less damage to the environment"

Para. 2-3
 "The conventional bearings have to put the lubricating oil on the surface. And due to the contact for the conventional bearings, the abrasion of it will cost more. But for the magnetic bearings, we do not have to worry about this."

Para. 4
 "In the paper, we focus on the application and the control method of the magnetic bearings. We expect this application can achieve 20000 rpm and store 5 kW energy."

Para 5
 "The organization of the paper, we will introduce the design of every component of the magnetic bearings. And then we will introduce our control method, after that, we will have the simulation and the experiment for the whole system"

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Grouping (Exercise 19.3.1)

- Think about different groupings that would work
 - Which ideas that you have listed are connected? How?
- Each group will become one paragraph

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Ordering groups (Exercise 19.3.2)

- Basic order should be clear for the Introduction
 - Based on order of components
 - Must decide on order of presentation within Need
- More important for Process and Testing
 - Which part of the design should you talk about first?
 - Should you talk about all the Framework first?
 - Or alternate Framework/New design?
 - Which test should you talk about first?

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Content outline (Exercise 19.3.3)

- List your groups in order
 - Use indenting rather than numbering
 - Makes reorganization easier
- Section – tentative title
 - Subsection 1 – tentative title
 - Paragraph 1 – main idea
 - Paragraph 2 – main idea

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Topic sentence outline (Exercise 19.3.4-5)

- For each paragraph, write a tentative topic sentence
 - Make sure the order makes sense
- Section – tentative title
 - Subsection 1 – tentative title
 - Paragraph 1 – ~~main idea~~ topic sentence
 - Paragraph 2 – ~~main idea~~ topic sentence

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Directions to your house

- Not every street, house in town
- Just those necessary to get to your house
- Same with Introduction
- Just papers leading to your research

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Topic sentences

- See handout on ECourse
- Page 1 illustrates Topic sentences and notes
 - = Topic sentence outline
- Page 2 illustrates paragraphs with topic sentences

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Topic sentences

- Topic + Direction
- Topic = main idea you will discuss in the paragraph
- Direction
 - Description (e.g., background)
 - Summary in topic sentence
 - Details on rest of the paragraph
 - Claim (e.g., component claim)
 - Claim in topic sentence
 - Support in rest of the paragraph

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Topic sentences

- MOOC gb 0:54-2:15
- https://www.youtube.com/watch?v=JowNEoZOXr8&list=PLQnggbzkJv9zeKq_FnLKgoQcyKALWtaoz&index=34

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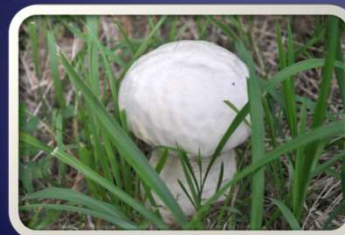
Topic sentences

- Every paragraph should have a topic sentence
- Topic sentences = Topic + Direction
 - Description
(TS = summary, followed by details)
 - Claim
(TS = claim, followed by support)

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Work time



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Work Time

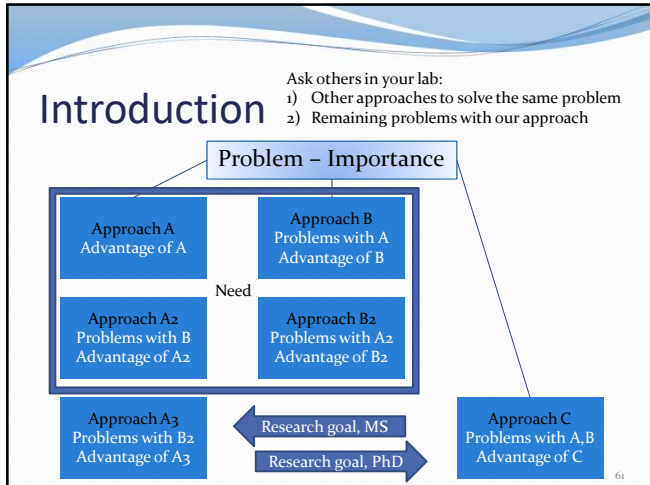
- Write what you can
 - Importance: Why is your work important? 
 - Need: How could you group previous research?
 - Different types of solutions
 - Different problems that have been encountered
 - Research goal: What is your proposed solution? 
 - (As well as you can state it at the moment)
- Write the easier first, then the harder
- Discuss with your partner
 - Are the topic sentences clear, in order?

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Assignment

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1 Write

- Topic outline and notes (Exercise 19.3, Parts 1-3)
 - Based on your argument structure outline
 - decide how many paragraphs you will write and what each will be about
 - what will be in each paragraph (citations, notes)
- Topic sentence outline (Exercise 19.3, Parts 4-5)
 - Based on the handout on ECourse
 - write a topic sentence for each paragraph

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2 Turn in

- Prewriting assignment
 - Prewriting (10%)
 - Homework, Chapter 19 (modified):**
 - Preliminary title and one paragraph on your Research goal**
Description of your research topic, as well as you can at this point
 - Exercise 19.1, Argument structure outline (modified)**
For complete paper
Based on exemplar article(s)
Table: Expected length, paragraph number, components, citations per component
 - Exercise 19.3, parts 3-4, Topic sentence outline and notes**
For Introduction division
In outline format, not table
Include articles to be cited in each paragraph, at least 5 references
- Notice the rubric (most points for topic sentence outline)

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3 Read

- (Chapter 20: Writing)
- Chapter 21: Rewriting for organization
- One more article

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Bring

- Assignment with comments

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Presentations

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