

Clear Scientific Writing: Audience and Purpose

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Game Plan: Three Lectures

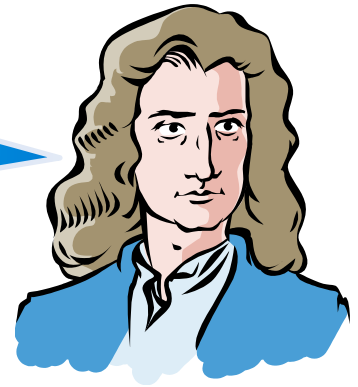
- Today: Higher-order writing concerns
 - Homework
- Next time: Lower-order writing concerns
 - Homework
- Third time (ideal): Live consultations on each of your assignments

Clear Scientific Writing

Why is this kind of writing important?

“In science, the credit goes to the man who convinces the world, not to the man to whom the idea first occurs.”

--Sir William Osler



When does writing affect your message?

Clear Scientific Writing

- When does writing affect your message?
 - Funding grants
 - Conference proceedings/paper publication
 - Proposal acceptance

You have to learn to write well to communicate your ideas effectively!

Problem: We think “Writing is **HARD!**”

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 - Staring at the blank screen
 - Procrastination/not writing
 - Uncontrolled words written down
 - Disorganized thoughts
 - Grammar/mechanics problems



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Solution: Find a more productive way of thinking

- Writing is **HARD WORK!**

Writing is Thinking

- Who are you writing for?
 - Audience
- Why are you writing for them?
 - Purpose
- How will you write it for them?
 - Genre

Audience

- Why consider them?
 - Be on the same page
 - Keep up with you
- How to do it?
 - Boil down ideas
 - Make them palatable
- Exercise



Exercise 1

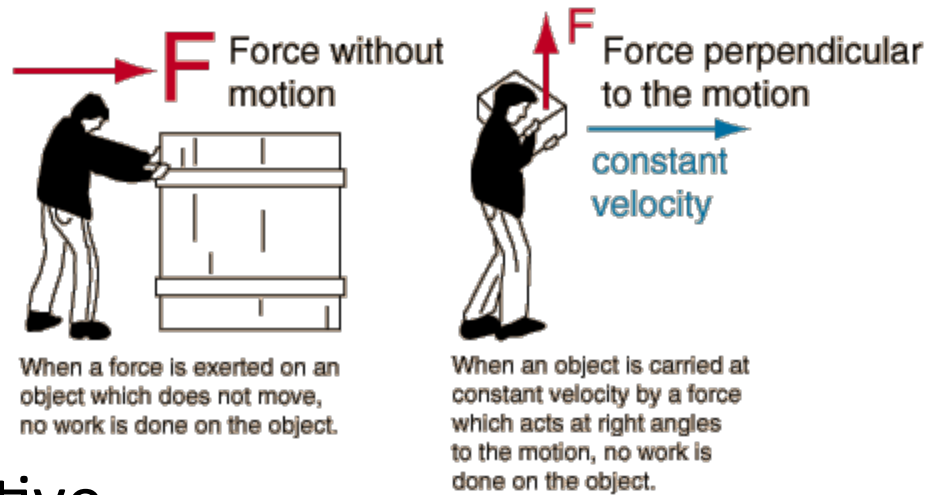
You're writing an informational letter about UH. Write one or two sentences that state the most important thing(s) to know about UH. Write your letter to:

- A high school student thinking about coming here
- An alumni thinking about donating to your department
- A new graduate student in your department

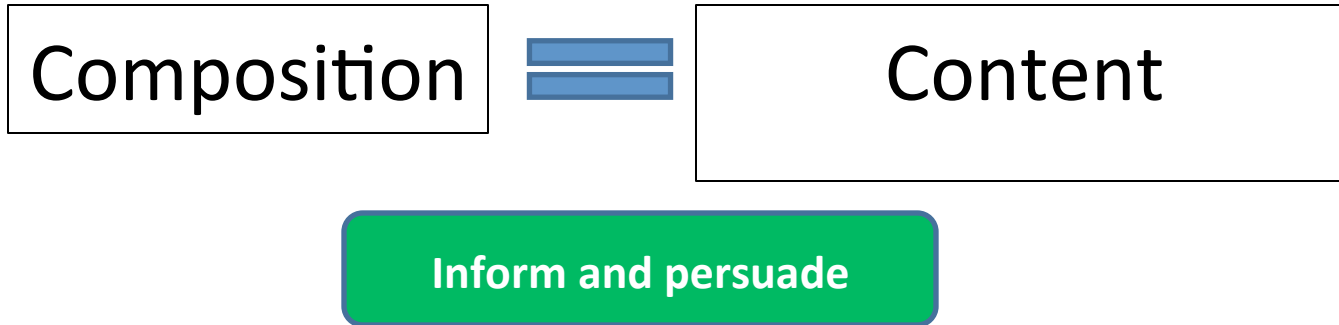
Time: 5 minutes

Purpose

- Why consider it?
 - Relevant information
 - Works for **you**
- How to do it?
 - Use reader's perspective
 - Identify gaps in knowledge (problem)
 - Fill gaps in knowledge (solution)



Writing strategy: think about purpose



Your purpose is tied to your solution!

Identifying the Problem

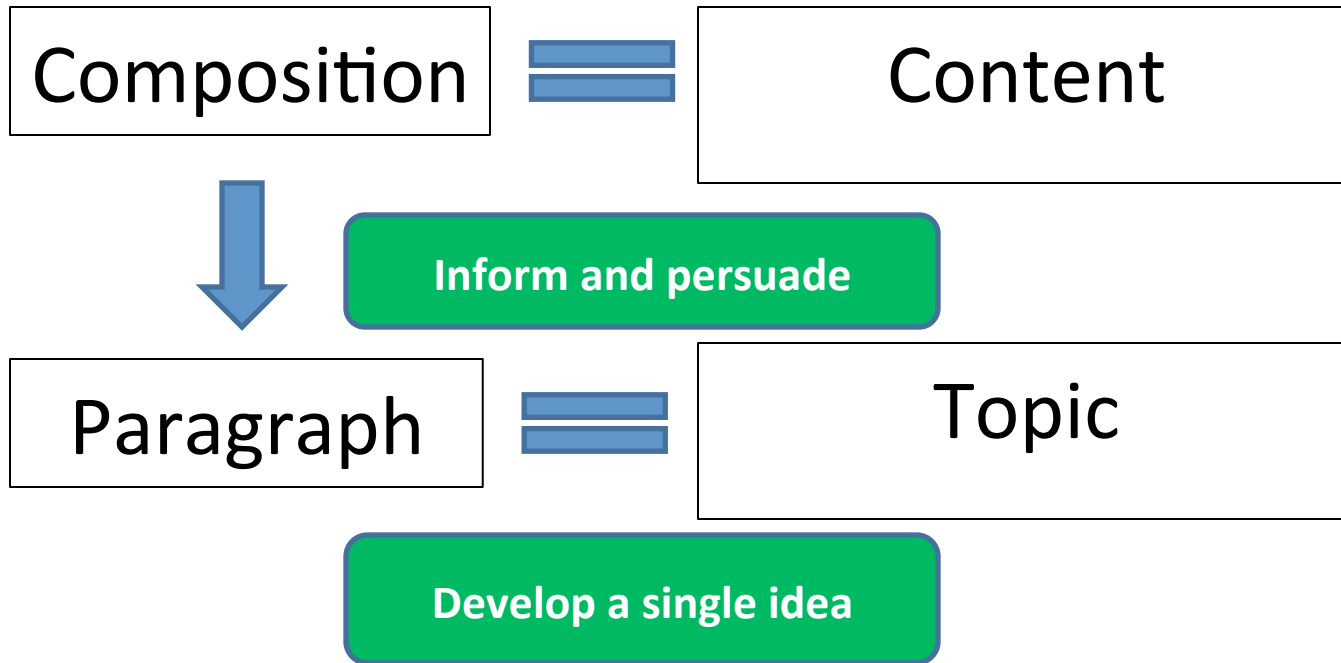
- At each level of the writing process, you are providing a solution to a specific kind of problem.
- Composition purpose varies by writer/reader
 - Examples: To inform, to argue, to confirm, to persuade

Problems and Solutions: Composition

“Describe the project you want to pursue this semester. This description must be significantly polished incorporating all the feedback you have received.”

- Problem: Reader doesn't know what kind of project you're doing
- Solution: Describe your project
- Purpose: To inform
- Exercise: “Defend,” “Promote,” “Suggest”

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Identifying the Problem

- At each level of the writing process, you are providing a solution to a specific kind of problem.
- Paragraph level: topic problem
 - Introduction
 - Conclusion
 - Body
- Paragraph purpose: develop a single idea (topic) for writing

Problems and Solutions: Paragraph

- Introduction
 - Problem: The reader does not know anything about the topic
 - Solution: Provide background information
 - Problem: The reader does not know why you're writing
 - Solution: Introduce yourself and your purpose
 - Problem: The reader doesn't know why s/he should listen to you
 - Solution: Establish your authority/relevance

Problems and Solutions: Paragraph

- Conclusion
 - Problem: The reader might have forgotten the main points you made
 - Solution: Summarize information
 - Problem: The reader is still not convinced you are right
 - Solution: Provide “closing arguments”
 - Problem: The reader doesn’t know what to think or do after they’re done reading
 - Solution: Issue a call to action

Problems and Solutions: Paragraph

- Body paragraphs have the same purpose
 - 1) Establish the topic
 - 2) Identify the problems and solutions
- Example Topic: Misinformation
 - Problem: The reader may not know about the type
 - Solution: Identify the misinformation
 - Problem: The reader may not believe that it's misinformation
 - Solution: Provide evidence to support your statement
 - Problem: The reader may have information countering yours
 - Solution: Acknowledge counterarguments

Problems and Solutions: Paragraph

Example: Establish the topic

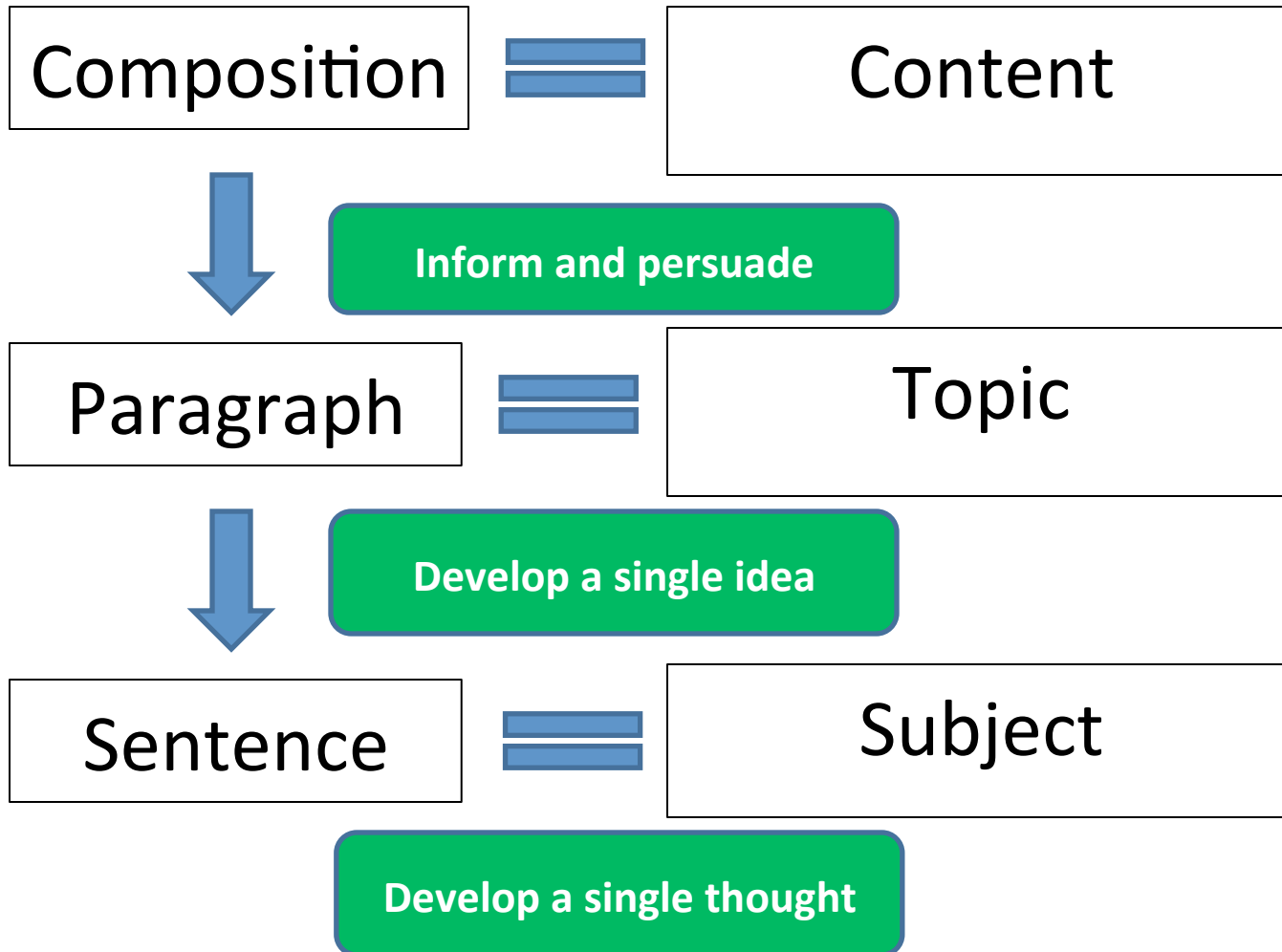
Security concerns of using this smart power meter is also arising. What kind of security problems can be arised by smart meters? The smart meter causes fire. Yes, they do cause fire, so do analog meter and home appliances. The fire reason should be deeply digged. For example, sometimes, because the resident uses some big power consumption device which results in cable and meters overloading, the fire happens. And also the fire rate because of smart meters should also be investigated. If this rate is much higher than analog device, then smart meter is not accepted. Another issues includes safety of privacy data and preventing being hacked from hostile attack. I believe that computer scientists do have solution to solve these problems. Therefore security is not an abstacle.

Problems and Solutions: Paragraph

Example: Establish the topic

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Exercise 1 Revisited

- How does your information change depending on the audience?
- Was there an implicit purpose?
- Homework: Check the website

Conclusion

- Think about your audience
- Think about purpose, purpose, purpose!
 - Purpose of a composition: inform/persuade
 - Purpose of a paragraph: develop single idea
 - Purpose of a sentence: develop single thought