Problem: Disorganized, hard-to-follow writing.
Solution: A systematic (non-chaotic) writing process leading to well-organized writing.

1. What’s Different About Academic Writing?
   a) Example
   b) Principles
2. Collapsing Data into Meaning
3. Structured Writing
   a) Introductions
      a) Graph
   b) Standard Academic Paragraph
   c) Good academic paragraph?
      a) Exercise
   d) Overall Logical Flow
4. We Need a Plan
   a) We Don’t Have a Plan
5. Organization: Where It Fits
6. Outlining
   a) Philosophy & Tips
   b) Tools
      i. Traditional
      ii. MS-Word
   c) A Classic Organizational Puzzle
7. Embedding Content and Structure in Language
8. Disclaimers
9. Jeffrey Herbst example
Suspense style:

It was a dark and foggy night. The stranger plodded across the deserted parking lot to the front doors of the 7-Eleven. Beads of perspiration dotted his forehead. His lips twitched nervously. He thrust a hand into his coat pocket, rubbed his fingers for reassurance across the cold, metal object concealed inside. The object made him feel powerful, more than alive. He entered the store and stalked straight to the cashier. Pulling a money clip from his pocket, he muttered, “Pack of Marlboros—unfiltered.”

Academic style:

The subject purchased cigarettes at a 7-Eleven convenience store at approximately 11:15 p.m. The primary atmospheric conditions were lack of lunar illumination and moderate to heavy fog. There were no other customers in the parking lot nor inside the store. The subject exhibited signs of mild nervous anxiety. He proceeded directly to the check-out. The transaction was completed in cash.
Every form of writing has a unique objective. Think about the difference between a political speech, a novel, a how-to manual, a poem, or movie review, etc. The objective dictates methods, styles, and formats. What then is different about academic or research-based writing?

The objective of academic writing:

- The primary purpose of academic writing is to create a formal record of a research inquiry, not to provide a beginning-to-end reading experience.

The unique problems of academic writing:

- We are writing about the objective truth in the world, not the subjective truth in our minds.
- Knowledge goes to infinity in every direction.
- Academic writing usually describes the relationship between abstract ideas rather than telling stories. We explain how some part of the world works, usually applying theory to facts.
- We are specialized writers with specialized readers. Similar issues may address completely different audiences.

The solution:

- Employ structured writing that continually places context before detail.
- State facts simply and accurately.
A new study has found that only one-third of people diagnosed with gluten sensitivity actually experience adverse side effects from gluten intake, adding further weight to the growing suspicion among scientists that gluten intolerance isn’t actually a thing.

The study, led by a team of gastroenterologists from the University and Spedali Civili of Brescia in Italy, involved recruiting 35 volunteers who had been diagnosed with non-celiac gluten sensitivity (NCGS). This condition is based on a small 2011 study that found gluten-containing diets can cause gastrointestinal pain in people who don’t have caeliac disease - an autoimmune disorder that flares up with gluten intake.

These volunteers had been living off a strict gluten-free diet for at least six months before the study, and were then asked to complete a series of "challenges" involving gluten-containing and gluten-free flours. Completely blind to what they were actually eating, the volunteers were given sealed sachets simply labelled "A" and "B," each containing 10 grams of flour.

For the first stage of the experiment . . .
Introductions can be like abstracts. Establish—briefly and clearly—the problem boundary, the purpose and outline of the paper, and even the result. Collapse the entire paper content into an accurate generalization. Save the details for later.

After 9/11, the Transportation Security Administration was created to ensure the safety of the nation’s transportation systems. Initial policies resulted in inefficient procedures, exemplified by air passengers waiting in long lines for security screening. While that procedure has been streamlined, other issues remain unresolved. A particularly vexing problem is the issue of liquid carry-ons. Current policy is based on quantity: liquids are limited to 3.4 ounces per container. But are there qualitative methods available for screening liquids? This paper will review two potential methods based on emerging technologies: chemical x-ray screening and digital molecular analysis. Both methods were evaluated for cost, effectiveness, and efficiency. The evidence will show that chemical x-ray screening best meets the qualitative requirements, but is currently cost prohibitive.

This is just a claim. The proof comes in the rest of the paper.
Structured Writing: Introductions
(graph of example)

The roadmap lays out the shape of the entire organization. It puts the top levels of the outline into words.

Roadmap: “This paper will review two potential methods based on emerging technologies: chemical x-ray screening and digital molecular analysis. Both methods were evaluated for cost, effectiveness, and efficiency.”

Boundary statement: “While the cost of x-ray screening appears reasonable, a more problematic issue is effectiveness.”

The complete context includes the ideas of the work and their organization.
Structured Writing: Standard Academic Paragraph

Organization goes down to the paragraph level.

Follow this order to achieve logical flow in a paragraph:

• Topic sentence (identify the key idea(s); describe it briefly and precisely)
• Facts/evidence (unless engaged in philosophy, analysis needs a foundation in fact)
• Analysis (make a case that the facts argue for the idea of the topic sentence)

Example:
The Acme digital molecular unit (DMU) scored 100% in volatility detection, but the machine requires frequent calibration. The standard Knoles Volatility Test was applied by a Princeton team, under the oversight of a TSA scientist. The test was conducted using the most rigorous protocols, and the DMU performed well. However, the sensitive sensors of the DMU demonstrated wear after only 84 hours of continuous usage. Volatility detection immediately dropped from 100% to the 91-96% range. Risks may still be low at these levels, but for the liquid-volatility problem, any value below 100% must be considered unacceptable. Therefore, the sensors would have to be replaced before 84 hours at an interval deemed to be reliably safe.

The topic sentence should be a general statement, but comprehensive.
A 12-oz. Coke contains 39 grams of sugar, the equivalent of 10 standard sugar cubes. A 2.6-oz. bag of Skittles contains 47 grams. A McDonald’s chocolate shake contains a whopping 111 grams, about 28 cubes worth. These numbers indicate that many popular snack foods contain excessive levels of sugar. The popularity of these items may be the single biggest contributor to the alarming rise of diabetes in the United States. Studies have shown that if this problem is ignored, it threatens to overwhelm the American healthcare system.

**Contradictory destination; same facts, issue #2 (measurement methodology vs. health):**

A 12-oz. Coke contains 39 grams of sugar, the equivalent of 10 standard sugar cubes. A 2.6-oz. bag of Skittles contains 47 grams. A McDonald’s chocolate shake contains a whopping 111 grams, about 28 cubes worth. The anti-sugar, anti-fun lobby loves to flog us with these numbers and would have us believe that they are cause for alarm. But is there more to the raw numbers than meets the eye? Researchers at Johns Hopkins have shown that the standard testing methods for measuring sugar levels produce highly misleading results.

**Positive destination; same facts, issue #3 (flavor):**

A 12-oz. Coke contains 39 grams of sugar, the equivalent of 10 standard sugar cubes. A 2.6-oz. bag of Skittles contains 47 grams. A McDonald’s chocolate shake contains a whopping 111 grams, about 28 cubes worth. The high levels of sweetness in these popular snack foods reveal why they make such a delicious treat for young and old. Many people these days, who find themselves planning a birthday party on short notice, supply the above products to their guests rather than bake a cake. Just as long as sweet things are on the menu, guests will be happy.

The real problem occurs, not in short paragraphs, but in longer, more abstract passages.
Many popular snack foods contain excessive levels of sugar. A 12-oz. Coke contains 39 grams of sugar, the equivalent of 10 standard sugar cubes. A 2.6-oz. bag of Skittles contains 47 grams. A McDonald’s chocolate shake contains a whopping 111 grams, about 28 cubes worth. The popularity of these items may be the single biggest contributor to the alarming rise of diabetes in the United States. Studies have shown that if this problem is ignored, it threatens to overwhelm the American healthcare system.

The standard testing methods for measuring sugar produces highly misleading results. According to these methods, a 12-oz. Coke contains 39 grams of sugar, the equivalent of 10 standard sugar cubes. A 2.6-oz. bag of Skittles contains 47 grams. A McDonald’s chocolate shake contains an unbelievable 111 grams, about 28 cubes worth. Really? The anti-sugar, anti-fun lobby loves to flog us with these numbers and would have us believe that they are cause for great alarm. But there is more to the raw numbers than meets the eye. Researchers at Johns Hopkins have demonstrated serious flaws in the measurement protocols.

When planning a birthday party on short notice, invest in sweetness. A 12-oz. Coke contains 39 grams of sugar, the equivalent of 10 standard sugar cubes. A 2.6-oz. bag of Skittles contains 47 grams. A McDonald’s chocolate shake contains a whopping 111 grams, about 28 cubes worth. The high levels of sweetness in these popular snack foods guarantee that they would make a delicious treat for your guests. As long as sweet things are on the menu, guests will smile. When it comes to parties, sweetness equals success.
Logical flow passes from one topic sentence to the next, not from the end of one paragraph to the beginning of the next. This works best when comprehensive introductory material tells the reader how things fit together.

Example:


Structured Writing: Overall Logical Flow

Three levels for reading your paper

- Introduction/abstract
- Introduction + topic sentences
- Introduction + topic sentences +/- the paragraph details

The topic sentences are your basic ideas. Ideas are the backbone of academic writing. So consider the topic sentences when organizing.
We Need a Plan

Would you combine these two processes?

Where is it cheaper to make changes?

In writing terms:

Organization

The writer is both the architect and the builder.
Mingling steps 2 and 3 often produces disorganized writing. Mingle steps 1 and 2.
Outlining: Philosophy & Tips

• Philosophy
  • As complexity rises, the need for organization increases.
  • The outline is a valuable tool for thinking through the big issues. It models the way we rearrange ideas or parts of ideas in formulating the plan for a paper.

• Goals
  • #1: Create a firm plan for the final product—the paper.
    • You’re ready to write when a vague sense of the paper has been replaced with a clear plan.
  • Integrate outlining with learning the topic.
    • Start outlining early in the process, to retain your big-picture understanding before you get immersed in the details.
  • Resolve the high-level issues of the paper before squandering time writing polished material that may be discarded.
    • Divide the paper into a discrete set of smaller problems.
    • Show logical flow of paper’s components.
  • Create a “bird’s-eye view” of the plan:
    • Use the outline as a map for staying on course.
    • Inventory everything—structure, ideas, evidence—in one place.
      • Information, notes, sources, and ideas are scattered in multiple places; and they’re not all visible at once.
    • Keep wording brief to preserve the high-level view.

• Tips
  • Don’t worry about formality unless the outline will be shared.
  • Use multiple outlines for big projects.
    • A thesis could have a general plan (imposed in part by the thesis template), and a detailed outline for each chapter.
  • Keep adjusting the outline until it makes good sense as the organization for the paper.
    • After each major revision to the outline, “rehearse” the paper in your mind to get a feel for how it plays out. When you run into snags, revise and rehearse again.
Outlining: Tools

A. Traditional methods
   1. Pencil and paper
   2. 3 x 5” cards
   3. Post-It® notes on wall

B. MS-Word (or PowerPoint) outlining tools
   1. Turn outlining on/off
   2. Move indentation left/right
   3. Moves lines up/down
The generic NPS paper:

1. Take a theory with three parts
2. Apply to two case studies

The class assignment:

1. Dictator Theory (explains why are some nations are ruled by dictators)
   i. Weak institutions
   ii. Widespread corruption
   iii. Tradition of strongman rule
2. Case studies of countries with dictators
   i. Framistan
   ii. Easternova
3. Does the theory apply to these cases?
Approach 1, theory as main structure:

1. Intro
   i. Brief context
   ii. Purpose of paper
   iii. Methodology/roadmap
   iv. Thesis

2. Discussion of Dictator Theory
   i. Weak institutions
   ii. Widespread corruption
   iii. Tradition of strongman rule

3. Introduce countries
   i. Framistan
   ii. Easternova

4. Components
   i. Weak institutions
      a) Framistan
      b) Easternova
   ii. Widespread corruption
      a) Framistan
      b) Easternova
   iii. Tradition of strongman rule
      a) Framistan
      b) Easternova

5. Conclusion

Approach 2, case studies as main structure:

1. Intro
   i. Brief context
   ii. Purpose of paper
   iii. Methodology/roadmap
   iv. Thesis

2. Discussion of Dictator Theory
   i. Weak institutions
   ii. Widespread corruption
   iii. Tradition of strongman rule

3. Introduce countries
   i. Framistan
   ii. Easternova

4. Case studies
   i. Framistan
      a) Weak institutions
      b) Widespread corruption
      c) Tradition of strongman rule
   ii. Easternova
      a) Weak institutions
      b) Widespread corruption
      c) Tradition of strongman rule

5. Conclusion
Approach 1, theory as main structure:

4. Components
   i. Weak institutions
      a) Framistan
      b) Easternova
   ii. Widespread corruption
      a) Framistan
      b) Easternova
   iii. Tradition of strongman rule
      a) Framistan
      b) Easternova

Approach 2, case studies as main structure:

4. Case studies
   i. Framistan
      a) Weak institutions
      b) Widespread corruption
      c) Tradition of strongman rule
   ii. Easternova
      a) Weak institutions
      b) Widespread corruption
      c) Tradition of strongman rule

Which approach is superior? Considerations:
- What’s the intent of the paper?
- What is the argument? (What does the evidence suggest?)
- Where is the best evidence?
- Which categories have the most evidence?
- Where do the categories overlap?
- Which approach reduces redundancy?
- Which approach reduces fragmentation?

The puzzle has to be solved for every paper . . . no one-size-fits-all solution.
Embedding Content and Structure in Language

The content and structure both have to be embedded in the paper in language. In longer papers, section divisions and headings help.

Blunt/obvious transitions:
According to the Dictator Theory, three elements are primarily responsible for the rise of national dictators: weak institutions, widespread corruption, and a tradition of strongman rule.

The first element, weak institutions, where they exist, undermine the confidence of the public in government, causing citizens to place their faith in other forms of rule. Etc., etc., etc.

The second element, widespread corruption, is often a secondary effect of the first. Etc., etc., etc.

More artful transitions:
According to the Dictator Theory, the rise of national dictators is primarily attributable to weak institutions, widespread corruption, and a tradition of strongman rule.

Weak institutions, where they exist, undermine the confidence of the public in government, causing citizens to place their faith in other forms of rule. Etc., etc., etc.

While widespread corruption is often analyzed separately, as the sole economic component of the Dictator Theory, it is in fact a direct byproduct of institutional weakness. Etc., etc., etc.
Disclaimers

• This is an approach to writing a research paper, not a strict requirement or a template. Mix and match techniques as necessary.

• Your professor is probably not a writing critic. He or she has the same expectation as any reader: a clear definition of the paper’s purpose and an orderly execution.

• Is research writing creative? Yes, but it’s a different kind of creativity because we’re searching the world for answers, not the imagination.

• With proper outlining and organization, there’s no such thing as writer’s block, because you know what you’re going to write before you write it. Instead you may have researcher’s block: is my research question valid? where is the evidence? how is it evaluated? is it sufficient? Etc.

• Does good organization make writing easy? A good paper will always be challenging to write, but good organization moves the effort to where it will get the best return, the learning phase not the writing phase.
Article example which illustrates a flexible approach. Jeffrey Herbst, in “War and the State in Africa” (International Security, Spring 1990), blends a more detailed context with a description of the formal elements of the paper, i.e. problem, methodology, argument, research question, thesis, roadmap, and remedy to the problem. He also builds in structural elements and topic sentences as he goes.

Color-coded pdf available on GWC website: https://my.nps.edu/web/gwc/resident-workshops under “Organization: The Secret to Clear Writing”
Plan well and discover that you’re a much better writer than you knew.

Questions?

Slides at:
https://my.nps.edu/web/gwc/resident-workshops

Further comments and suggestions welcome. Please email John at:
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