Foundations of Scholarly Writing
Session 2

Maximizing Your Writing Productivity
Addressing Micro-level Writing Problems

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Maximizing your Writing Productivity
Paper project list

• Prioritize finishing one at a time and submitting
• Check your portfolio
  – Prioritize the stars – 2 or 3 max, not 6
  – Old data? Commit to finishing the paper or give it up
• Set a timeline for completing the writing project
  – Share with the author team
  – Make the team accountable
Send it in!

You’ll get another chance to revise 😊
“Like most writers, I don’t like to write; I like to have written.”

What is YOUR writing process?

1. What “slows you down”? What are some of the barriers you’ve encountered to making progress on a writing project?

2. What stage(s) of the writing process or types of writing tasks do you enjoy the most? The least?

3. What strategies have you used successfully (or attempted to use) to become a more productive writer?
Barrier: “I don’t have any (or enough) time to write”

Some approaches to finding time to write:

• Clearing the decks
• Wedging
• Scheduling

Deck Clearers

Idiom “clear the decks” means: To finish dealing with what you are doing so that you can start to do something more important.

With respect to writing:
“Having finished or set aside all other projects, you barricade yourself against interruptions, and work without pause for a heavenly period.”

The Problem:
You can never write until the decks are cleared – which might be impossible.

“If” is the plague of deck clearers.

Wedgers

“...are driven to write and do it in between everything else....

They “wedge prose into short intervals: 15 minutes between meetings; a half-hour between when the kids leave and they have to leave for work; an hour on the plane before the pilot’s announcement to shut off electronic devices.”

The Problem:

Wedging gives you bits and pieces. At some point, you need to clear the decks and schedule time to work on all of those bits.

“When” constrains the wedger.

Schedulers

“Some get up early in the morning, some write after others go to bed at night, some come home from work and write for a few hours with their work spread out on the dining room table….Schedulers also create special space – a study, an alcove, a spot, a chair.”

The Reality:

“Sooner or later, most writers, after trying all sorts of strategies, become schedulers, but how they get there is variable.”

You have 1 hour of scheduled writing time.

- What kinds of writing or writing-related tasks might you engage in?
- Consider tasks for the beginning, middle, and end stages of writing a manuscript for publication.
Barrier: “I’m not ready to write.”

I need to read more literature. I need to do more analyses. I need to __________.

“Many writers I’ve worked with …persevere too long in one or more of the stages of writing. They may spend too much time preparing notes from the literature relevant their project, they may revise formal drafts too many times.”

Some Solutions

1. Recognize that there are a variety of writing tasks you can complete during your scheduled writing time

2. Prioritize based on demand and mood
   – Discussion section
   – Intro section (use your grant!)
   – Tables/figures
     • Complete before the results section
     • Label rows and columns and give to statistician
   – Results
   – Methods (use your grant!)
   – References

3. Don’t be a perfectionist
   – Leave “placeholders in text” for things you can’t quite get right...
   – Practice sending “messy drafts” to others for interim feedback; experience success in moving the project forward more rapidly
General strategies for getting “unstuck”

1. **Leapfrog.** Stop trying to write sequentially. Jump around in your draft to the next section that interests you. Fill in the gaps later.

2. **Change your writing method.** Leave your computer and use pen and paper.

3. **Change your writing time.** We are almost all morning or evening people, and probably write during our best time. If stuck, try writing during your “off time.”

4. **Prepare a lecture.** Imagine you must present your paper to colleagues tomorrow morning. How would you organize and present the information?

5. **Talk to a colleague.** Discussing your project with an insightful coworker can help bring out the ideas hiding just below the surface.

Barrier: “I don’t feel like writing.”

Tough love moment of the day:

“Struggling writers who ‘wait for inspiration’ should get off their high horse and join the unwashed masses of real academic writers.”
When faced with the choice to write or do something else, a wide assortment of “something else” activities can become surprisingly appealing.

**At Home**
- Take a nap
- Paint the bathroom
- Defrost the freezer
- Call your mom

**At Work**
- Clean your office
- Check, answer, sort emails
- Get coffee
- Socialize
- Wish for pager to go off
Consider Contingency Management

The systematic reinforcement of desired behaviors and withholding of reinforcement until desired behaviors take place

“Decide which recurrent, daily activities you enjoy and make them contingent on doing a valued, but delayable task first.”


Establish a contingency for completing your scheduled writing time.

“I cannot do _____ until I do ____.”
Data on this approach

FIGURE 3. Individual Writer Performance.
“Writing well is not totally a matter of will and self-discipline. Human beings have a need for reassurance and control that simple determination does not provide. Writing rituals help meet these needs. The right pen, the lucky clipboard, the same early morning hours, the ritualistic classroom procedure, the usual posture, the routine motions—foolish and inconsequential as they may seem to be—have the power to provide patterns that enhance the act of writing.”

Writing as a team sport

Potential advantages include:

• Skills of one author can supplement deficiencies in another.
• Workload is shared.
• New ideas and perspectives enrich the text.
• Writer has more interaction, less isolation
• New writers can be mentored
Characteristics of successful writing teams

• Defined roles - take advantage of one another’s skills - not just in their scientific content area, but also approaches to writing.
  – Writer
    • Freewriter of first drafts
    • Polisher: Excellent substantive editor; puts manuscript in final publishable style
  – Critical thinker
  – Literature reviewer
  – Statistical expert
  – Leader, Critiquer, Cheerleader

Characteristics of successful writing teams

• Defined roles

• Leadership

• Vested team members - willing to work, committed to seeing the project through to final outcome

• Commitment to regular meetings

• Foster a safe space for honest and direct discussions, disagreements, and problem-solving.
Writing Support Groups
Addressing Micro-Level Writing Problems
“Some readers might think you’re smart if your writing is impenetrable, but you don’t want that undiscerning audience. Most scientists are impressed by good ideas and interesting findings, so don’t hide your ideas behind a wall of junk English.”

Paul J. Siliva, PhD – psychologist, author of How to Write a Lot

Golden rule: The need for clarity always outweighs the need for brevity!
Clarity Issues - Paragraph Level

Problems:
• Too many points covered in a single paragraph
• Main point of a paragraph is difficult to discern (can’t see the forest through the trees)

Solutions:
• Stick to one point per paragraph
• Develop cohesion among sentences

Cohesion: the act or state of uniting or sticking together.
Good Cohesion

The **prophylactic** administration of drugs can sometimes be detrimental to patients, especially if prophylaxis is **continued** for several days. Continued exposure of the host’s microbial flora to antibiotics often leads to resistant strains, and this can lead to **superinfection**. 

**Superinfection** can be avoided, however, by prophylactically using probiotics together with the antibiotics to restore normal flora. **Prophylaxis** is recommended when the host is subjected to a **treatment**, not involving antibiotics, that can lead to serious disease. One such **treatment** is a **surgical procedure**. In **surgical procedures**, prophylaxis is usually directed at preventing staphylococcal infection. In **surgical procedures** that are considered “clean,” antibiotics are not recommended.

Poor Cohesion

Animals, particularly domestic animals, are important reservoirs and sources of disease to humans. **Salmonella** species are normally found in the intestinal tract of animals such as poultry and cattle. When humans ingest contaminated food, the salmonellae can cause disease called **Salmonellosis**. In terms of animal disease transmission, humans often represent a dead end because the disease cannot be transferred from human to human.

**Salmonellosis** may be acquired from animals, but the infected human can also serve as a source of disease to other humans.

Use “Known-New Contract”

**Topic position** = Contains info that links back to what reader already knows

**Stress position** = Contains new info that writer wants to emphasize

---

1. Patient satisfaction is diminished by poor continuity of care and long wait times in the clinic.

2. Poor continuity of care and long wait times in the clinic can diminish patient satisfaction.

**Emphasis is placed on:**

- What factors influence patient satisfaction?
- What is the impact of poor continuity of care and long wait times in the clinic? (reverse of sentence 1)
Use “Known-New Contract”

**Topic position** = Contains info that links back to what reader already knows

**Stress position** = Contains new info that writer wants to emphasize

Notice how the following example uses the known-new contract to create a coherent flow of ideas.

Accounts of depression evolved after psychologists introduced the concepts of defeat and entrapment. These concepts have been implicated in theoretical accounts of anxiety and suicide. Such theories...
Use transition words, phrases, and sentences

<table>
<thead>
<tr>
<th>USE</th>
<th>TRANSITION WORDS</th>
<th>TRANSITION PHRASE</th>
<th>TRANSITION SENTENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition</td>
<td>again, also, further, furthermore, in addition, moreover</td>
<td>In addition to X, we ...</td>
<td>Further experiments showed that ...</td>
</tr>
<tr>
<td>Concession</td>
<td>clearly, evidently, obviously, undeniably</td>
<td></td>
<td>Granted that X is ...</td>
</tr>
<tr>
<td>Comparison</td>
<td>also, likewise, similarly, etc.</td>
<td>As seen in ...</td>
<td>When A is compared with B ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the same way,</td>
<td>As reported by ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>When compared to ...</td>
</tr>
<tr>
<td>Contrast</td>
<td>but, however, nevertheless, nonetheless, still, yet</td>
<td>In contrast to A ...</td>
<td>On difference is that ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>On one hand; on the other hand ...</td>
<td>Although X differed ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Despite X ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unlike X ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>On the contrary,</td>
<td></td>
</tr>
</tbody>
</table>
Use transition words, phrases, and sentences

<table>
<thead>
<tr>
<th>USE</th>
<th>TRANSITION WORDS</th>
<th>TRANSITION PHRASE</th>
<th>TRANSITION SENTENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>for example, specifically</td>
<td>To illustrate X ...</td>
<td>An example of X is that ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>That is, ...</td>
</tr>
<tr>
<td>Explanation</td>
<td>here, therefore, in short</td>
<td>Because of X ...</td>
<td>One reason is that ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In this experiment ...</td>
<td>Because X is ...</td>
</tr>
<tr>
<td>Purpose</td>
<td>for this purpose</td>
<td>For the purpose of ...</td>
<td>The purpose of X was to ...</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To this end, ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>To determine XYZ, we ...</td>
<td></td>
</tr>
<tr>
<td>Result</td>
<td>consequently, generally, hence,</td>
<td>As a result of ...</td>
<td>Evidence for XYZ was that ...</td>
</tr>
<tr>
<td></td>
<td>therefore, thus</td>
<td></td>
<td>Analysis of ABC showed that ...</td>
</tr>
<tr>
<td>Sequence/Time</td>
<td>after, finally, first, later,</td>
<td>After careful analysis of X ...</td>
<td>After X was completed, ...</td>
</tr>
<tr>
<td></td>
<td>last, meanwhile, next, now,</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>second, then, while, subsequently</td>
<td>During centrifugation, ...</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>in brief, in conclusion, in fact,</td>
<td>To summarize (our results) ...</td>
<td>As a summary of our results shows, ...</td>
</tr>
<tr>
<td></td>
<td>in short, in summary</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Point-First Paragraphs

• Also called “topic-sentence development (TS-D) model”
• Present main point in first sentence.
• Then provide explanatory details.
• Allows reader to “skim read” effectively
Point-First Paragraphs

Example:

The 2 weight loss diets differed ...in their effect on postprandial glycemia and insulinemia.

Incremental area under the curves for glucose (mean [SE], 2706 [394] vs 1070 [336] mg/dL per minute, \( P = .003 \)) and insulin (5581 [859] vs 2044 [733] \( \mu \)IU/mL per minute, \( P = .003 \)) were more than 2-fold greater for test meals from the low-fat vs low-glycemic load diet groups, respectively.

JAMA 2004;292(20):2482-2490
Point-Last Paragraphs

- Open with a question or an argument
- Present evidence, develop the argument
- Wrap up with a conclusion.
- Strong at both opening and resolution.
- Helpful when you need to assemble an argument, pulling threads together to weave them into a single conclusion.
We then questioned whether the phosphorylation of STAT1 at its tyrosine residue 701 is necessary for its downregulation.

Thus, we co-transfected…

As shown in Figure 3D…

There was only a relatively small increase in…, suggesting….

Taken together, our data suggested that NPM-ALK phosphorylates STAT1 at predominantly the Y701 residue, and by doing so, promotes its degradation.
Problem 1: Subject-verb separation

Example:

Fourteen patients who were treated at the Children’s Hospital between August 1997 and July 2001 for malignant tumors that could not be excised composed the sample.

Better:

The study sample was composed of 14 patients who were treated at the Children’s Hospital between August 1997 and July 2001 for malignant tumors that could not be excised.
These results show that ATP and GTP are capable of binding to the same site in the mRNP but higher specificity is shown for ATP than for GTP, while the other nucleotides tested (CTP, UTP, AMP) did not stimulate the initiation of the translation, on the contrary, they produced some inhibition being most pronounced for UTP and CTP, suggesting that these nucleotides compete with ATP and GTP for the same site in the mRNP.

(Average of 18 words per sentence)
Problem 2: Sentence Length

• If you write a long sentence: make the key point in a short initial clause.

EXAMPLE:
We focused on two members of this family: Rab5, which controls transport from the plasma membrane to the early endosome and regulates the dynamics of early endosome fusion, and Rab7, which governs membrane flux into and out of late endosomes. [40 words]
<table>
<thead>
<tr>
<th>Empty Phrase (jargon)</th>
<th>Preferred Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>at this point in time</td>
<td>now</td>
</tr>
<tr>
<td>a number of</td>
<td>many</td>
</tr>
<tr>
<td>due to the fact that</td>
<td>because</td>
</tr>
<tr>
<td>during the time that</td>
<td>while</td>
</tr>
<tr>
<td>in close proximity to</td>
<td>near</td>
</tr>
<tr>
<td>give rise to</td>
<td>cause</td>
</tr>
<tr>
<td>if conditions are such that</td>
<td>if</td>
</tr>
<tr>
<td>are of the same opinion</td>
<td>agree</td>
</tr>
<tr>
<td>ascertain the location of</td>
<td>find</td>
</tr>
<tr>
<td>the vast majority of</td>
<td>most</td>
</tr>
<tr>
<td>a greater number of</td>
<td>more</td>
</tr>
</tbody>
</table>
Problem 3: Lack of Parallel Structure

Example:
Prolonged febrile illness, together with subcutaneous nodules in a child, could be due to an infection with a Gram+ organism, but it could also be that the child suffers from rheumatic disease.

Better:
Prolonged febrile illness, together with subcutaneous nodules in a child, could be due to an infection with a Gram+ organism or due to rheumatic disease.
Problem 3: Lack of Parallel Structure

- To write ideas in parallel form, the same grammatical structures are used

<table>
<thead>
<tr>
<th>Direct Object</th>
<th>Preposition</th>
<th>Object of Preposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on our hypothesis, we expected to see:</td>
<td>a decrease</td>
<td>in</td>
</tr>
<tr>
<td></td>
<td>an increase</td>
<td>in</td>
</tr>
</tbody>
</table>
Problem 4: Faulty comparisons

- Sentence is comparing things that cannot logically be compared.

Example 1
She enjoyed Hayden’s symphonies more than Mozart.

Revision
She enjoyed Hayden’s symphonies more than those of Mozart.

Example 2
The side effects associated with taking Drug A were similar to Drug B.

Revision
The side effects associated with taking Drug A were similar to those associated with taking Drug B.
Problem 4: Faulty comparisons

- The adjectival phrase *compared with* is often “misplaced” in the sentence – it is not placed next to the noun that it actually is meant to describe.

**Example:**

Men are more likely to benefit from this drug *compared with women*.

**Revision, with modifier correctly placed:**

*Compared with women*, men are more likely to benefit from this drug.
What about this example?

Blood pressure decreased 20% in Group A compared with Group B.

1. What happened to bp in Group A?
2. What happened to bp in Group B?
3. How is what happened in Group A different from (or similar to) what happened to Group B?
Could be interpreted in several ways

Blood pressure decreased 20% in Group A compared with Group B.

<table>
<thead>
<tr>
<th>What really happened?</th>
<th>How can text be clarified?</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP decreased only in Group A, not in Group B.</td>
<td>From time 1 to time 2, blood pressure decreased 20% in Group A but remained stable in Group B.</td>
</tr>
<tr>
<td>BP decreased in both groups, but decline was more pronounced in Group A than in Group B.</td>
<td>The decline in blood pressure from time 1 to time 2 was 20% greater in Group A than in Group B.</td>
</tr>
</tbody>
</table>
Take-Home Message

Poorly written comparisons are so prevalent in the scientific literature that most of us, having “learned by reading,” are tempted to repeat the errors we see in print.

Resist the temptation!
Problem 1: Overuse of nominalizations

- Nominalizations = verbs made into nouns, commonly with endings such as -tion, -ment, -ence, -al
- Often done to make statements appear more neutral.
- Make the writing less “active” (lively, interesting, engaging)
- Often requires several words when one word would do.
- **Solution**: Turn them back into verbs.
Overuse of nominalizations

Examples
• We made the determination that community members are effective intervention leaders.
• Separation of the compounds was accomplished by liquid chromatography.
• The occurrence of these behaviors was noted in three subjects.

Revision
• We determined that community members are effective intervention leaders.
• The compounds were separated by liquid chromatography.
• These behaviors were noted in three subjects.

Nominalization is completely unnecessary! (redundancy)
Problem 2: Vague Pronoun Antecedents

- **Antecedent** = the noun that a pronoun takes the place of

**Example 1:**
Monkeys of this species are not susceptible to these diseases, so research on *them* is hampered.

**Example 2:**
Children are born with billions of neurons in *their* brains, but in order for *them* to be connected properly *they* need to be touched and talked to extensively by *their* parents.

- **Solution:** Be very clear in referencing pronoun antecedents (inserting original noun as needed) so that readers understand your meaning rapidly (on first read)
Problem 3: Word (nouns) Clusters, aka Pile Ups

- Lengthy clusters of nouns used as adjectives for another noun.

Examples:
- the negative penicillin skin test result **group**
- bilateral anterior magnetic phrenic nerve **stimulation**
- two-dimensional real time ultrasonographic blood flow detection **techniques**

Impact:
“When nouns are packed too close together, like sardines in a tin, the connecting thought gets suffocated.”

Word (nouns) Clusters

**Solution:** Disentangle a noun cluster by inserting one or more prepositions that clarify the relationship between one word and the next.

**Problematic**
- cultured sheep pulmonary artery endothelial cells
- artificial intelligence information retrieval approaches

**Revision**
- cultures *of* endothelial cells *from* the pulmonary artery *of* sheep
- Approaches that use artificial intelligence *to* retrieve information [?]
- Approaches *for* retrieving information about artificial intelligence [?]
Thank you!

Questions?