Becoming a Productive Author

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Intrinsic Challenges of Scientific Writing

- Standards for scientific writing are unforgiving: high stakes game, with rigorous peer review
- Scientific writing is complex in content and logic
- Accurate expression of complexity requires a challenging combination of clarity and brevity
Reported Barriers to Writing

- Time
- Organization
- Research Environment
- Writing knowledge/skills
- Emotions/personal factors
- Task difficulty
- Insufficient preparation for research career

Sample of junior faculty women in medicine, n=193

Developed by Constance Baldwin, Ph.D
I’m not writing (enough)

My schedule is
NOT under
MY control

Lack of Control
• Negotiate
  (supervisor, co-
  workers, partner,
  family, others)
• Re-organize time
• Work from
  priorities
• Stay organized

My schedule is
under
MY control, BUT…

...the schedule isn’t
working for my writing

... I need more
support

... I need more
information

... I procrastinate

Schedule
• Synchronize energy for writing
• Plan small steps, set timed goals,
  leave trail
• Schedule regular writing episodes
• Protect time & environment

Support
• Mentors
• Collaborators
• Content specialists

Tools and Skills
• Parts of a scientific article
• Nuts & bolts of scientific writing
• Literature about my topic

Procrastination
• Try free writing
• Divide the task into smaller pieces
• Give your talk as a presentation
• Get help

Developed by: Shine Chang, Ph.D.
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Efficient Writing of a Research Article
Choosing the Best Journal

• **Key considerations:**
  – Level of prestige and competition
  – Journal’s scope of interest
  – Audience, size and type
  – Turnaround speed
  – Formats and styles available

• **Look over recent issues**—does your paper fit?

• **Talk to the editor if you are uncertain**

• **Aim high!** (and have a backup journal in mind)
Phase 1: Preparation

1. Plan the paper when you plan the study
2. Plan ahead for writing co-authored papers
3. Collect, organize, and prioritize bibliographic materials before you begin to write
4. Get data in order and draft tables and figures
Phase 2: Writing and Revising the First Draft

1. Choose journal, study Instructions to Authors, read recent articles

2. Define your primary purpose: What scientific question are you asking and how will you answer it?

3. Generate ideas: you need to make the bricks before you begin to build the wall

4. Sequence ideas and shape first draft as quickly as possible (don’t obsess over holes)

5. Refine the tables and figures

6. Now go back and systematically refine the document
Phase 3: Feedback and Final Revisions

1. **Recruit reviewers:** collaborators, experts, + one “naive” reader
2. **Let document lie fallow while waiting for comments**
3. **Assimilate and evaluate critiques**
4. **Revise radically, if needed, but keep sequence of dated backups**
5. **Before submission, re-review compulsively**
6. **Know when to stop.** You’ll get another chance to revise when the reviews come back.
Self-analysis: Which are your limiting steps?

1. Crafting a good question
2. Reading the literature
3. Planning and completing the study
4. Starting to write
5. Completing first draft
6. Editing and perfecting (and dealing with co-authors)
7. Completing and submitting
8. Revising and resubmitting
What are your tricks for writing efficiently?
Ten Tips for Efficient Writing

Developed by Constance Baldwin, Ph.D., University of Rochester Medical Center, constance_baldwin@urmc.rochester.edu
1. The first draft only has to get written to succeed

- Recycle old work
- Write around an outline
- Write what is easiest first (e.g., description before analysis; figures before discussion)
- Or don’t write it: draw, talk to someone, dictate
- Don’t obsess over holes or details
Writers Block
Worst Case Scenario
2. At the start, remain open to new ideas

- Give yourself room for new insights and directions as you compose
- Later, build a consistent, logically ordered progression of ideas

[Writing requires a finely tuned mix of inspiration and perspiration.]
3. Develop regular writing habits

• Write during your personal “prime time” and protect this time from interruptions
• Write regularly (e.g., 1-2 hour periods, 2-4 times/week)
• Avoid binge writing
• Use rituals if they work for you!

Examples: Virginia Woolf and Joseph Conrad
4. Control your writing environment

- Create an environment that enhances your:
  - Comfort
  - Concentration
  - Efficiency

- Protect this environment from intrusions

- Or: create a mobile writing system and move to the best environment available

Example: William Faulkner
5. Multi-task and recycle

- Turn a presentation abstract into a talk, and then into a paper
- Turn a seminar into a grant proposal
- Reuse grant material in papers:
  - Grant background/significance $\Rightarrow$ article introduction
  - Grant methods $\Rightarrow$ article methods
  - Literature review $\Rightarrow$ teaching presentation
  - Case presentation $\Rightarrow$ talk $\Rightarrow$ paper
6. **End a writing session at a new starting point**

- Don’t end a session at the end of your ideas
- Before you stop, jot down a quick outline of ideas for your next session
7. If you stall out, step back to get a fresh perspective

- Make a quick outline. Are critical elements missing or duplicated?
- Put the text aside and tell a colleague what you are trying to say
- Dictate your thoughts and listen for key ideas and new insights
8. Revise efficiently, from large to small scale

- Logic and clarity of main argument and study design
- Focus, organization of supportive data
- Conventional placement of material
- Paragraphs: clarity, focus, continuity
- Sentences: clarity and brevity
- Formatting and readability
- Grammar and spelling
9. Exploit the power of the computer

- Compose at the keyboard
- Begin with an outline and fill in the text around it
- Recycle old prose (even emails)
- Free yourself to experiment
  - Save dated backups
  - Use virtual wastebasket
9. Exploit the power of the computer, continued

- Keep all manuscript materials on one memory stick
- Develop a literature review table (concepts, citations, applications)
- Use electronic tools
  - Reference manager
  - Spell checker (but proof as well!)
10. Expect to revise, and revise again

- Efficiency won’t eliminate the need to rewrite and revise
- Anticipate at least 5-6 drafts for papers, 4 or more for grants

Few (if any) writers avoid the labor of revisions!
How do you manage the urge to procrastinate?
Seven Tips for Fighting Procrastination

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What causes procrastination?

• Usually not laziness or inefficiency!
• Often the cause is a fear of failure
• Dealing with these emotions will make you much more productive
• Using failure constructively—for your purposes—can be the secret to success

Feel the fear and do it anyway!
Susan Jeffers
1. Fight to protect your writing time

- Identify writing as a professional priority
- Set aside regular, prime time for writing
- Protect this time vigorously
2. Set time-limited goals and reinforce them

- Set specific writing goals with deadlines
- Publicly announce your goals (to spouse, writing partner, colleagues, and/or boss)
- Ask for follow-up and reinforcement
3. Divide and conquer

- Subdivide a writing task into manageable units
- Create a timeline and track progress (at least weekly)
- Reward incremental progress
- Celebrate completion
4. Create a writing support system

- Develop a support system to enhance productivity:
  - research team
  - peer-exchange (weekly productivity sessions)
  - writing group
  - writing mentors
  - personal rewards system

Harness the power of social support—or social pressure!
5. Maximize the pleasure

- Emphasize what makes writing worthwhile to you—e.g.:
  - Capitalize on creative impulses
  - Strengthen the conceptual basis of your research
  - Socialize the process (find a partner)
  - Remind yourself of your ultimate goal

- Disguise the task as something more fun!
  - Give a talk, write it up, ask colleagues from audience to read and review
  - Get motivated by a brainstorming lunch with co-authors
6. Minimize the punishment

- Proactively manage personal and professional conflicts
- Avoid exhausting writing binges
- Hire an editor if you need one—or a gopher, or home help
Tip 7. Curb your perfectionist urges!

- Recognize when perfectionism is becoming self-defeating
- Fight perfectionist paralysis at all stages:
  - Don’t aim for “perfection” too early in the process
  - Learn to welcome outside input. Review from a new perspective will improve the document
  - As you near the end, acknowledge when enough is enough
- Ask: How “perfect” does this product REALLY need to be?
DESPITE THE CHALLENGES, PERSEVERE!

Only *YOU* can make it happen

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