

A checklist of skills and practices for a developing writer working towards independent learning.

For each row, under “status”, the writer should indicate “yes”, “no”, “maybe”, or “don’t understand”, before discussion with the mentor. The checklist exercise should then be repeated every 6-12 months to measure and celebrate progress. Mentors can also annotate a version of the checklist to articulate what they expect from students/lab members at various stages of development (e.g., undergrad lab tech, 1st-year master’s, 3rd-year PhD, 2nd-year postdoc).

Skill or practice^a	Status (yes, no, maybe, don’t understand)
1a. Name two challenges you face in your own writing behavior.	
1b. Suggest a solution to each behavioral challenge.	
1c. Implement each solution.	
2a. Develop a concrete writing plan (intermediate self-deadlines, daily writing schedule, etc.) for a writing project.	
2b. Follow through with the plan in 2a until the project is successfully concluded.	
3a. Name two support people (librarians, etc.) you could ask for writing help.	
3b. Identify two specific tasks a support person could help you with.	
3c. Meet with a support person for writing help.	
4a. Identify two books of writing advice suitable for your discipline and stage of development as a writer.	
4b. Read those two books and make notes on at least 3 practices you will adopt or change as a result.	
4c. Having implemented the 3 practices in 4b, write a reflection on their effectiveness.	
5a. Identify at least one writing authority/expert – in your discipline or not – who has a podcast, website, blog, or social media presence.	
5b. List at least 3 suggestions for your writing gleaned from the authority in 5a.	
5c. Having implemented the suggestions in 5b, write a reflection on their effectiveness.	
6a. Receive comments on a draft, and make a checklist of errors/issues to avoid or self-revise in future writing.	
6b. Revise a draft using the checklist from 6a.	
7a. Read a paper or other piece of writing and make notes of two things to emulate and two to avoid.	

7b. Act on the plans from 7a in your own writing.	
8a. Form a writing group to discuss writing practices, review/edit each other's writing, or read critically together.	
8b. Meet with a writing group at least 6 times and write a reflection on outcomes from this practice.	
9. Write a draft and then make substantial revisions (not just edits) before submitting to writing mentor.	
10a. Identify a lab mate or other close peer who could give useful comments on a draft.	
10b. Receive comments, and revise as a result, from person in 10a.	
11a. Identify a more distant colleague, peer or more senior, who could give useful comments on a draft.	
11b. Receive comments, and revise as a result, from person in 11a.	
12. Add two more skills or practices to this checklist that would advance your independence.	
13. Reflect on a time when you enjoyed writing. When was that, what kind of writing was it, and how can you build some of those factors into the writing you're getting better at now?	

*Blank rows are included (and can be filled in and multiplied as needed); they remind the mentor that this list is far from exhaustive. Skills and practices are described somewhat vaguely; this is deliberate because there is value in the developing writer thinking about how to interpret them.

This table is an excerpt from Chapter 6 in *Teaching and Mentoring Writers in the Sciences: An Evidence-Based Approach* (published in 2025 by the University of Chicago Press). You can preorder from the publisher tinyurl.com/MentoringWriters or and can sign up for occasional emails with updates about the book tinyurl.com/MentoringWritersUpdates.

Also relevant: Heard's book *The Scientist's Guide to Writing: How to Write More Easily and Effectively Throughout Your Scientific Career*. You can order a copy from the publisher tinyurl.com/ScientistsGuide, or from the evil corporate giant (usually cheaper) tinyurl.com/GuideRiver.

Heard maintains a curated list of writing resources (blogs, books, software, etc): scientistseessquirrel.wordpress.com/writing-resources/. Merkle's blog <https://schoolofgoodtrouble.substack.com/> has a ton of writing and mentoring resources too!