

Supplemental Material

CBE—Life Sciences Education

Gardner *et al.*

Supplemental Materials: Daly-Miller Writing Apprehension Test

I.D. # _____

Writing Apprehension Test—*Pre-/Post-Test* Daly-Miller WAT adapted by Gungle and Taylor (1989)

Directions: Below is a series of statements about writing. Please indicate the degree to which each statement applies to you by circling whether you (1) strongly agree, (2) agree, (3) agree somewhat, (4) disagree somewhat, (5) disagree, (6) strongly disagree with the statement. Some of these statements may seem repetitious; just take your time and try to be as honest as possible. Thank you for your cooperation in this matter.

1. I avoid writing.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

2. I have no fear of my writing being evaluated.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

3. I look forward to writing down my ideas.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

4. I am afraid of writing essays when I know they will be evaluated.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

5. Taking a composition class is a very frightening experience.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

6. Handing in a composition makes me feel good.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

7. My mind seems to go blank when I start to work on a composition.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

8. Expressing ideas through writing seems to be a waste of time.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

9. I would enjoy sending my writing to magazines to be evaluated and published.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

10. I like to write my ideas down.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

11. I feel confident in my ability to clearly express my ideas in writing.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

12. I like to have my friends read what I have written.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

13. I'm nervous about writing.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

14. People seem to enjoy what I write.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

15. I enjoy writing.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

16. I never seem to be able to clearly write down my ideas.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

17. Writing is a lot of fun.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

18. I expect to do poorly in composition classes even before I enter them.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

19. I like seeing my thoughts on paper.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

20. Discussing my writing with others is an enjoyable experience.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

21. I have a terrible time organizing my ideas in a composition course.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

22. When I hand in a composition, I know I'm going to do poorly.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

23. It's easy for me to write good compositions.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

24. I don't think I write as well as most people.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

25. I don't like my compositions to be evaluated.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

26. I'm no good at writing.

- (1) strongly agree (2) agree (3) agree somewhat (4) disagree somewhat
(5) disagree (6) strongly disagree

Supplemental Materials: Rose Writing Attitude Questionnaire

I.D. # _____

Writing Attitude Questionnaire—*Pre-/Post-Test* (from Rose (1984))

Directions: Below are twenty-four statements about what people do or how they feel when they write. Under each is a five-point scale describing degrees of agreement or disagreement with the statements. Please circle the number that best describes your agreement or disagreement with your own writing behavior.

For example, if the statement reads "I write standing up, like Hemingway" and you rarely or never write standing up, you should respond in the following way (your answer would be "5"):

- 1 - Almost Always
- 2 - Often
- 3 - Sometimes
- 4 - Occasionally
- 5 - Almost Never

This questionnaire requires that you reflect on your writing behavior in English. Some items will be easy to answer, but others might be a little difficult because you'll have to analyze what you habitually do. Try to recall exactly what you did when you wrote a recent paper, so that you can report what you really do, *not what you wish you could do*.

Obviously, you will **not** be graded on your answers on this questionnaire.

Therefore, you can feel free to report candidly what you do and feel when you write. Again, don't report what you would like to do and feel but what you actually do and feel. As you work through the questionnaire, you might realize that an earlier response wasn't right. If that happens, it is OK to go back and change your answer to make your response more accurate.

Attitude

1. My teachers are familiar with so much good writing that my writing must look bad by comparison.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

2. I've seen really good writing, but my writing doesn't match up to it.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

3. I think my writing is good.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

4. I think of my instructors as reacting positively to my writing.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

5. Writing is a very unpleasant experience for me.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

6. I enjoy writing, though writing is difficult at times.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

7. I like having the opportunity to express my ideas in writing.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

Complexity

1. I'm not sure, at times, how to organize all the information I have collected for a paper.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

2. Writing on topics that can have different focuses is difficult for me.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

3. I have trouble deciding how to write on issues that have many interpretations.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

4. To write essays on books and articles that are very complex is difficult for me.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

5. I have trouble with assignments that ask me to compare or contrast or to analyze.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

Lateness

1. I run over deadlines because I get stuck while trying to write my paper.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

2. I have to hand in assignments late because I can't get the words on paper.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

Editing

1. Each sentence I write has to be just right before I'll go on to the next.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

2. When I write, I'll wait until I've found just the right phrase.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

3. I find myself writing a sentence, then erasing it, trying another sentence, then scratching it out. I might do this for some time.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

4. My first paragraph has to be perfect before I'll go on.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

Blocking

1. While writing a paper, I'll hit places that keep me stuck for an hour or more.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

2. At times, I find it hard to write what I mean.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

3. At times, my first paragraph takes me over two hours to write.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

4. Starting a paper is very hard for me.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

5. At times, I sit for hours unable to write a thing.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

6. Some people experience periods when, no matter how hard they try, they can produce little, if any, writing. When these periods last for a considerable amount of time, we say the person has a writing block. Estimate how often you experience writer's block.

1 - Almost Always 2 – Often 3 – Sometimes 4 – Occasionally 5 - Almost Never

Supplemental Materials: Component 1

First-year Seminars

Introduction

The five seminars in this series for first-year PhD students in the IMSD program at LLU were developed by the writing specialist from her background in composition theory and rhetoric, work in writing across the curriculum with faculty in all disciplines, and years of teaching writing to a wide range of students--high school, undergraduate, graduate—and teachers from elementary level through university faculty. Participants in this series were given a labeled folder of materials for each session topic that included journal articles, hand-outs on writing, short exercises, etc., to be used during the session and for participants to keep. The seminars were taught using a variety of techniques: lecture with PPT, discussion, reading aloud, brainstorming prompts, observation activities of scientific writing, grammar/diction exercises, and so forth.

Seminar 1: *Myths of Writing and How Writing Really Works*

Seminar 1 was a PPT lecture that included dispelling various myths and baggage about writing that participants came to the first seminar with. This seminar also introduced the writing specialist and her roles of writing expert, coach, mentor, and editor. Some of the topics included the following:

Introduction of writing specialist and getting acquainted with PhD students, their personal background and research interests

PPT-supported lecture with focus on people's incorrect view of writing

5 Myths of Writing—description and examples

Myth 1: Knowledge of grammar is essential to being a good writer.

Myth 2: A writer has to have a huge vocabulary and use polysyllabic Latinate words to be considered a good writer.

Myth 3: Writing is easy and fun for good writers.

Myth 4: Good writers write it right the first time.

Myth 5: Writers are gifted people with special talents.

Distribution of a folder of materials

Reading aloud together an article by Bernard Dixon, a former editor of *Medical Science Research*, titled "Bernard Dixon on Lifeless Scientific Papers"

Source:

Dixon B. (1993). Bernard Dixon on lifeless scientific papers. Chron

High Ed <http://www.chronicle.com/article/Bernard-Dixon-on-Lifeless/71047>

Description of composing process seminal research of composition theorists

Reading and discussion of William Stafford's "A Way of Writing," particularly looking for what he says about getting started as a stage of the writing process, views of our writing, pressures about writing for others, etc.

Source:

Stafford W. A way of writing." <http://ualr.edu/rmburns/rb/staffort.html>

Ending with a short writing exercise first on their composing process, that is, describing how they go about writing when they have a writing task (deciding on a topic, getting started, environment and time for writing, etc.); second, on describing or listing what gets in the way of their writing; and, third, what they need addressed in the writing seminars.

Seminar 2: *Generating and Analyzing Science Writing*

If writing exercise on composing process and obstacles to writing from previous session was done after the session ended, begin with student input from what they discovered about their writing from doing this exercise

Distribution of a folder of materials

Hand-out on various examples of scientific writing from Newton in 1672 to Priestley in 1760 to Marie Curie in 1903 to more current science writing in geology and biology, looking at changes in language, certainty of diction, sentence structure, etc.

Hand-out titled "Four Rhetorical Choices for Communication Tasks" that features choice of medium, audience, purpose, and situation and discussion of M, A, P, S and how it affects content and approach to writing

Discussion of 3 questions about generating writing: what do you fear most when writing scientific papers? what kinds of strategies do you use to revise your writing? what processes do you think other scientists use to begin writing up their research as scientific articles?

Reading aloud an article by Pamela Fink from the *AAI Newsletter* titled "Dos and Don'ts for Writing a Scientific Manuscript" and discussing various parts of it

Source:

Fink PJ. (2010). Dos and don'ts for writing a scientific manuscript. In *Scientific Publishing: Dos and Don'ts for Authors and Reviewers*. AAI Newsletter.

https://www.aai.org/About/Publications/Additional/Docs/AAI_Dos_Donts.pdf

Discussion of Writer-based Prose (WBP) v Reader-based Prose (RBP) of Linda Flower's research and theory based on her original article "Writer-based Prose: A Cognitive Basis for Problems in Writing"

Source:

Flower L. (1979). *Writer-based prose: a cognitive basis for problems in writing*.

Available through <https://www.jstor.org>

Discussion of hand-out "9 Good Habits for Producing Effective Writing"

Seminar 3: *Reading the Rhetoric of Science*

Distribution of a folder of materials

Read aloud together and discuss Bryan Judge's article titled "The Skill of Writing"

Source:

Judge B. (2013). The skill of writing. *J Med Toxicol* 9:4-5. doi: 10.1007/s13181-012-0238-y

Hand-out and briefly go over "Tips for Reading Informational Texts" and "Good Readers of Informational Texts"

Read aloud and discuss the language, format, premises, figure, references, etc. of the iconic article on the discovery of DNA by Watson and Crick published originally April 25, 1953 in *Nature*. Note the changes in scientific writing/language.

Source:

Watson JD, Crick FHC. (1953). Molecular structure of nucleic acids: a structure for deoxyribose nucleic acid.

<https://www.nature.com/nature/dna50/watsoncrick.pdf?foxtrotcallback=true>

Provide copies of the first two pages of a variety of science articles to spread out on the table in front of each participant so they can see the differences in format, emphasis, use of pictures and figures, formality of language, use of scientific jargon, etc. I use two review articles, an off-print, a CBE science education article, a *Scientific American* article, and a popular magazine article on exercise. We observe differences and discuss these in relation to rhetorical principles of writing for particular audiences, purposes, and situations.

Read aloud and discuss an article by Robert Goldbort titled "Readable Writing by Scientists and Researchers"

Source:

Goldbort R. (2001). Readable writing by scientists and researchers. *J Environ Health* 63(8):40-41.

Seminar 4: *Precision in Scientific Language*

Distribution of a folder of materials

Read aloud and discuss the article by Amin Bredan titled "Inheritance of Poor Writing Habits"

Source:

Bredan A. (2013). Inheritance of poor writing habits. *EMBO reports* 14(7):593-596.

Hand-out on Rhetorical Questions Scientists Face

Read aloud and discuss an article by Robert Goldbort titled "Some Issues in Scientific Language: Precision, Conciseness, and English as a Second Language"

Source:

Goldbort R. (2001). Some issues in scientific language: precision, conciseness, and English as a second language. *J Environ Health* 64(2):41-42, 56.

Introduce students to Mimi Zeiger's book *Essentials of Writing Biomedical Research Papers*, 2nd edition, and the opening pages on writing the first draft, revising, and the rewards of clear writing

Source:

Zeiger M. (1999). *Essentials of writing biomedical research papers*, 2nd ed. New York: McGraw Hill.

Have students complete Zeiger's exercise on "Words Carelessly Interchanged" then discuss their answers in terms of precision in scientific language

Provide a copy of Sung-Tae Hong's article "Ten Tips for Authors of Scientific Articles"

Source:

Hong S-T. (2014). Ten tips for authors of scientific articles. *J Korean Med Sci* 29:1-35-1037. <http://dx.doi.org/10.3346/jkms.2014.29.8.1035>

Hand-outs on various types of transitions and how transitions help writing flow and cohere

Go over the use of "a" or "an" before acronyms (a technical point but science writing is full of acronyms and students are confused about which article to use)

Finish by noting John Ludbrook's helpful article titled "Writing Intelligible English Prose for Biomedical Journals" to be read on their own time

Source:

Ludbrook J. (2007). Writing intelligible English prose for biomedical journals. *Clin and Exper Pharm and Phys* 34:508-514.

Seminar 5: *Ethics in Science Writing and Publishing*

Distribute folder of materials

Go over hand-out "Simple Advice for Writing Science Articles," a bulleted list derived from the advice in Ludbrook's 2007 article distributed in the previous session

Provide a copy of "The Appropriate Use of Statistics in the Biological Sciences" by Pamela Shaw

Shaw PA. (2010). The appropriate use of statistics in the biological sciences. In *Scientific Publishing: Dos and Don'ts for Authors and Reviewers*. AAI Newsletter. https://www.aai.org/About/Publications/Additional/Docs/AAI_Dos_Donts.pdf

Begin a discussion of the pressures to publish in science for securing a position, advancing in a career, getting funded, etc., and how unethical and dishonest practices can ruin a career. There are multiple articles to be used, but some of the ones I put in the folder are:

- Frederick Southwick, "All's Not Fair in Science and Publishing"
Source:
Southwick R. (2012). All's not fair in science and publishing. *The Scientist*. <http://the-scientist.com/2012/07/01/all-not-fair-in-science-and-publishing>
- Sandra Titus, James Wells, and Lawrence Rhoades, "Repairing Research Integrity"

Source:

Titus SL, Wells JA, Rhoades LJ. (2008, June 19). Repairing research integrity. *Nature* 453:980-982.

- Mounir Errami and Harold Garner, “A Tale of Two Citations”
Source:
Errami M, Garner H. (2008, January 24). A tale of two citations. *Nature* 451:397-399.
- Baron Moffatt and Carl Elliott, “Ghost Marketing: Pharmaceutical Companies and Ghostwritten Journal Articles”
Source:
Moffatt B, Elliott C. (2007). Ghost marketing: pharmaceutical companies and ghostwritten journal articles. *Persp Bio and Med* 50(1):18-31.
- Simon Stern and Trudo Lemmens, “Legal Remedies for Medical Ghostwriting: Imposing Fraud Liability on Guest Authors of Ghostwritten Articles”
Source:
Stern S, Lemmens T. (2011). Legal remedies for medical ghostwriting: imposing fraud liability on guest authors of ghostwritten articles. *PLOS Med* 8(8):e1001070.
www.plosmedicine.org
- Alison McCook, “Life after Fraud”
Source:
McCook M. (2009). Life after fraud. *The Scientist* 23(7). <http://www.the-scientist.com/article/print/55772/>
- Richard Gallagher, “Fairness for Fraudsters”
Source:
Gallagher R. (2009). Fairness for fraudsters. *The Scientist*. 23(7). <http://www.the-scientist.com/article/print/55779/>

Note: There are multitudes of examples of ethical violations, fabricated data, fake journals, and plagiarism in the science literature—everything from well-known researchers to graduate students to international faculty—to research stories on. I use approximately 20 1-page examples to make the point that we must create ethical researchers of personal integrity to resist these practices. The Scientist.com is an especially good source of these examples.

Read aloud together Jeremy Boss’s article “What Do You Mean, I Already Published It! Ethics in Scientific Publishing” and discuss the issue of multiple submissions

Source:

Boss JM. (2010). What do you mean, I already published it! Ethics in scientific publishing. In *Scientific Publishing: Dos and Don’ts for Authors and Reviewers*. AAI Newsletter. https://www.aai.org/About/Publications/Additional/Docs/AAI_Dos_Donts.pdf

Wrap up series of seminars by discussing ethical publishing, process of writing and publishing, and invitation to participate in following writing and publishing workshops as students begin writing proposals, abstracts, articles, etc.

Supplemental Materials: Component 2

Guidelines for Writing and Publishing Workshops

Setting up the Workshop:

- A regular time must be set up, e.g. 2:15-4:00 pm, Tuesdays, and a location must be reserved that has adequate table space and chairs to accommodate a group of 10-12 so that all can sit around the table (no second tier of seats)
- A standing invitation to bring pieces of unfinished work, i.e., drafts in progress, should be given, and then participants must sign up for a specific date to have their pieces workshopped
- An adequate number of copies of the pieces must be made prior to the meeting time either by the workshop facilitator (the writing specialist) or the author of the piece

Conducting the Workshop:

- A friendly, informal beginning helps establish a comfortable environment—greetings, distributing pens for marking, reviewing who is presenting pieces, etc.
- The writing specialist acts as the facilitator asking the writer a few preliminary questions:
 - What is your research focusing on in this piece? What lab are you in, area of research, etc?
 - What type of piece, the genre, is this that you're working on?
 - What would you like from us, your audience, or what help are you looking for from us?
- Ground rules for critiquing must be established from the very beginning by the facilitator. These include the following:
 - Listen respectfully until a portion of the piece is read and the facilitator asks for comments
 - Let the writer know what is working well in the piece, as appropriate
 - Ask questions about the science or the wording or the organization or the sentence structure of the piece
 - Let the writer decide to accept a suggestion or not—the writer is always in charge of his/her own writing
 - No “slash and burn,” no “posturing” to look like the stronger writer, no one-ups-man-ship allowed
- Writer distributes copies of the draft and reads aloud while other participants follow along, marking places for comment, questions, or editing
- Discussion of the piece occurs for the science content and the clarity, organization, format, grammar/diction, etc. follows the reading
- Participants return the marked copies to the writer for use during revision and the next writer gets ready to begin reading

Supplemental Materials: Component 3 *Guidelines for One-on-one Conferences*

One-on-one conferences are initiated by writers when they feel the need for additional help with revision or final editing, particularly at the last stage of a draft. These sessions need to be safe, informal, and guided primarily by the needs and requests of the writer. These conferences often take place in the writing facilitator/specialist's office and face-to-face, but they can also occur on-line via emailed attachments with instructions from the writer, use of tracked changes by the editor, and discussion of the piece and the suggested comments/edits by phone or Skype.

Generally, the same questions the writing facilitator/specialist asks in the writing and publishing workshop to begin should be asked of individual writers in these conferences:

- What is your research focusing on in this piece? What lab are you in, area of research, etc.?
- What type of piece, the genre, is this that you're working on?
- What would you like from me, that is, what specific help are you looking for?

If an in-person conference occurs, the writer should provide two copies of the piece, then read it aloud slowly so the facilitator can mark places for further comments/questions and editing suggestions. This same method could be done over the phone or via Skype.

The writer and facilitator discuss the piece and suggested edits, the marked copy is returned to the writer, and the session ends.

Supplemental Materials: Interview Questions

1. How long have you participated in the IMSD writing seminars?
2. Is English the predominant language spoken in your family (between parents and children)? If no, what language is?
3. Is English the predominant language spoken in your extended family (with grandparents, aunts/uncles, cousins)? If no, what language is?
4. Is English your first/primary language? (If yes, skip questions 5 and 6)
5. No, my first/primary language is _____
6. If English is not your first/primary language, describe when and how you learned English.
7. Describe your background in writing (in English) before coming into the IMSD program.
8. What was your predominant attitude toward writing (in English) before the writing seminars?
9. Have you brought writing samples for content/structure/grammar editing to the group writing workshops?

If yes, describe what types of writing or pieces you have brought for workshopping.
10. How do you perceive your writing now as compared to when you started in the writing seminars?
11. Has anything in particular helped you improve in your writing as a result of the writing seminars/writing help?

12. Using a simple scale of 1 to 5 with 1 being very helpful, 2 being helpful, 3 somewhat helpful, 4 not helpful, and 5 doesn't apply, rate each of the following areas that formed the content of the writing intervention.

Provide any additional comments on each area as well if you wish.

1st area: formal presentations on writing such as PPT, hand-outs, lectures, etc.

2nd area: formal presentations on grammar

3rd area: individual 1-to-1 conferences on a piece of writing

4th area: group publishing and writing workshops focused on content and editing

5th area: electronic (on-line or via email) individual help with editing

6th area: informal group discussions on writing and publishing topics or issues

13. What do you remember learning about writing or having reinforced about writing from being in the writing seminars? Identify as many things as you can.
14. What do you think is the effect of having a writing specialist available during the program? Is it important, not important, a nice support, not something you have or would take advantage of, etc. Please comment.
15. Has anything in the IMSD program outside of the writing seminars helped you improve your writing? Please identify as many specifics as possible.
16. What has gotten in the way of your improving as a writer during your time in the IMSD program and as a graduate student?