Writing Skills Development Across the Discipline
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Preface
This presentation is organized into two parts, and is meant to complement the power point slides available from the oral presentation on this topic. The first part, entitled Future Job Seekers, addresses issues related to developing the writing skills for students headed into the job market. This section focuses primarily on undergraduates, who may or may not go on to graduate school. Since giving the oral version of this material, I have heard from several colleagues from other programs whose initial response to the topic was along the lines of “Yes, undergraduate writing is a real problem. We just instituted a writing intensive course to address it.” This is where my department was ten years ago and I can say with some assurance that a writing intensive course will not address the scope of the problem that we are faced with at the undergraduate level. In Part I, I discuss the reasons for poor writing by undergraduates and what can be done to improve writing. The good news is that effective writing instruction need not be the massive burden that the writing-intensive course often represents to the unfortunate instructor assigned to it. The better news is that writing improvement can occur in the context of large-enrollment courses focused on virtually any topic if some class time is devoted to writing consideration is given to the goals and nature of the writing projects assigned.

Admittedly little attention is given to the issue of writing in the professional training programs (master’s and Au.D. programs in speech-language pathology and audiology. This is in part because the problems often encountered at this level reflect problems left unaddressed at the undergraduate level. I have provided some tips from those on the front lines in my own program to facilitate mastery of the professional writing tasks that students in these programs encounter.

Part II, entitled Professional Writers, is oriented to those developing academic-research careers. This includes doctoral students and junior faculty. Unlike undergraduates, who may or may not appreciate the need to develop writing skills, these individuals are often highly motivated to write. Yet they may experience a number of barriers in their progress towards that goal. I will discuss challenges and perceived barriers by writers at these career stages. There is yet more good news in this section as there is data to show that intervention works. This section focuses on what writers can do to improve their own output and strategies that mentors can use to encourage higher writing productivity as well.
Part I: Future Job Seekers

The centrality of writing to an undergraduate education. Whether or not you believe that your department should be responsible for developing writing skills goes to the heart of the value we place on the undergraduate degree we offer. The reality is that not all of our students will go on to graduate school and careers as audiologists and speech-language pathologists. Once this is reality is acknowledged, the logical next step is to consider in what ways the departmental degree prepares undergraduate students to become educated citizens and valued employees. A core skill for any employee, in almost any job setting, is strong writing. Jobs need not be oriented towards writing to benefit from good writing skills. For amusing demonstrations of this truism I recommend a visit to the web blog CakeWrecks.blogspot.com or a quick skim of Nichol’s 2009 book I Judge You When You Use Poor Grammar. More seriously, more and more employers are conducting formal assessments the writing skills of all prospective employees. This is not just occurring for writing-oriented businesses like journalism and publishing, but also for rank and file companies that trade in goods and services. A 2010 Wall Street Journal column describe a national exam, akin to our own Praxis exam, that examines a number of job-relevant skills including analytical thinking, negotiation, communication, and writing skills (Levit, 2010). This examination is intended for those entering the job market. If your faculty is committed to preparing students for the current reality of a post-undergraduate job market, then meaningful writing instruction must be part of undergraduate curriculum.

When I was a junior faculty member, I spent a fair amount of fruitless time wondering why students could get as far as college without being able to string together thoughts into grammatical sentences and well-organized paragraphs. The reality is that there are many villains along the way who allowed this to happen, from the parent who allowed their child too much “screen time” and not enough reading time to the English 101 instructor who encourages students to emote on paper rather than to support a position using a coherent and grammatical argument. I had to admit that if I did not take responsibility for student writing, I just became one more in the chain of villains. It was too easy to blame everyone else for the problem but the reality is that they were my students now. The buck stops had to stop with me.

Writing is in our scope of practice. The good news is that writing instruction is within the scope of practice for speech-language pathologists. Therefore, at least one person on your faculty, and probably more, has expertise relevant to writing. This expertise includes an understanding of the language basis of writing and how it is disrupted in disorders. Knowledge of expository narrative structures is basic to identifying why some writers fail to organize ideas in a coherent fashion. Even specific knowledge of syntax, word finding can be very informative when faced with the types of errors that occur regularly in undergraduate writing samples. Finally, writing strategies that work for those with language-based disorders also work with those who have typical language skills but still demonstrate poor writing. Note that if you do not have faculty teaching this content in undergraduate or graduate courses already, you may have a bigger problem than the one discussed here.
Who are the poor writers? Poor undergraduate writers come in three varieties. The majority are likely to be average students who have had limited access to quality writing instruction. Writing for these students is relatively easy to improve if they are told what the standards for good writing consists of and are held accountable for meeting these standards. A second group of poor writers are those who have a diagnosed communication disorder that affects language. Increasing numbers of these students are enrolling in college as these individuals are entitled to accommodations under the Americans With Disabilities Act. At the University of Arizona, there are an estimated 400 students on campus who have language-based learning disabilities, brain injury, or other conditions that impair language. Other large universities probably have similar numbers. These individuals’ writing problems go beyond lack of prior instruction, and they may display the same written language signs that are covered in our language disorders courses within the major. The third group consist of students with undiagnosed language disorders. Epidemiological data at the preschool level (Tomblin, Freese, & Records, 1997), indicates that as many as 71 percent of children language disorders may go undiagnosed. Given that oral language deficits tend to become more subtle rather than more obvious with time, it is likely that many of those who are undiagnosed during the preschool years may continue to evade diagnosis through the school years. Although the signs of a language disorder may be obvious when these individuals are asked to produce college-level writing, we cannot be offering diagnoses to individuals who did not request the services of a speech-language pathologist by virtue of enrolling in our class. Making unsolicited diagnoses may actually have unfortunate legal consequences for the instructor who attempts this.

The nature of writing errors. Regardless of why a student is a poor writer, their writing deficits can be conceptualized using broad categories drawn from scholarly work on narratives. Clinicians’ analyses of narratives consider two broadly-defined categories. The first, macrostructure, includes how information is organized and flows between paragraphs and between sentences. The second, microstructure, considers errors in grammar, word choice, spelling, and punctuation. Undergraduate writing can reflect problems at the macrostructure level, the microstructure level, and for the really unfortunate, both levels.

Macrostructure problems can occur because of poor comprehension of the material the student is asked to write about. Consider the following example:

The renaissance was a time when people felt more worth in their beings. Martin Luther was nailed to a church door in Germany for selling papal indulgences. He died a horrible death by being excommunicated with a papal bull. (http://history-world.org/essays.htm)

Not only are words misused (a microstructure problem), but the ideas just seem to come randomly (macrostructure problem). The content suggests that the student has only a partial grasp of the critical information, leading to these problems. However, macrostructure problems can occur even when the student does comprehend the material. This may occur for students who “just need to get something on paper” and fail to review their output to assure that ideas are coherently organized. Others may not understand conventions for how information should be organized (e.g., each paragraph establishes one
and only topic). Others struggle with transitions between ideas, paragraphs, or have limited knowledge of how to use transitional terms (e.g., although vs. while, vs. however vs. never-the-less). The following example of a spectacularly poor transition comes from a flyer posted on the University of Arizona campus, author thankfully anonymous:

Do you like horses? Join the first annual barbeque of the University of Arizona Horseman’s Association!

At the microstructure level, errors can involve language form or content. Consider the following examples from one of my own classes, which reflect difficulty handling advanced complex constructions that are common to advanced writing (among other things):

“Wong et al (1999) studied when the people with the implant heard silence it activated the right temporal region.”
“Sound levels are seen in both hemispheres when researched by Hart et al (2002).”

Word choice errors are also common and are very often reminiscent of word finding errors we see in language disorders. Word finding errors can result from weak semantic representations or from difficulty accessing the specific phonological forms of lexical items (or both). The following word errors can easily be understood in this light:

“My intensity and focus are at inordinately high levels, and my ability to complete projects on time is unspeakable.” (Messmer, Resumania, 2002)

Spelling and punctuation errors are also common problems, primarily because of their frequency of occurrence. Commas and semicolons are sprinkled into text like confetti. Spelling can only be termed imaginative, and the convenient little red squiggles under words offered up by text processors provide only a welcome and colorful break from the otherwise drab black on white display. For future job seekers, these errors imply a level of sloppiness that will not be attractive to Human Resources representatives. Fortunately, punctuation at least is rule governed, and students provided with simple rules such as the following can easily avoid errors:

If you feel the need to use a semicolon, remove your hands from the keyboard until the feeling passes (paraphrased from the late James Kirkpatrick).

**What can be done?** There are three basic strategies I recommend for improving writing outcomes at the undergraduate students, and if necessary, for graduate students as well. They include the following, each of which will be discussed separately:

1. Consider the goal of each writing assignment.
2. Develop a departmental writing curriculum.
3. Incorporate best practices for writing instruction.
Consider the goal of each writing assignment. If I am a beginning skier, and I ski more miles, I will become a better skier, even in the absence of further instruction. If I cook more frequently, I will become a more efficient cook. Writing is not like this. Simply having students write more does not result in better student writing. This is often the downfall of the “writing intensive class”. If the goal is to produce better student writing, then the types of writing assigned should be those that actually work to improve student writing.

I suggest that different types of writing assignments actually address fundamentally different writing goals. One goal is to allow students to demonstrate their knowledge. These assignments might take the form of essay exams, ungraded essays, and class generated test questions. If they are graded, they are typically graded for the content communicated rather than the mechanics of the writing. A second goal is to use a writing assignment as a vehicle for students to gain new knowledge. These assignments might take the form of the classic term paper or a critical review. The point of these is that the student should go out and learn something not covered in lecture and report back, in writing, on what they have learned. These assignments are graded for content, and may also be graded for writing form. However, these assignments are often suboptimal for improving student writing for several reasons that I will touch on below. A third goal is to explicitly target writing improvement. If this is the goal, then writing assignments are likely to be much shorter than a typical term paper. This is because longer papers often involve significant cognitive load (learning new information to write about, integrating information from different sources, building complex arguments). Struggling writers will show you their form errors in short writing formats and these deficits are much easier to correct if these writers are not in cognitive overload by the length of the assignment.

Once the assignment is limited in length, students must be provided very specific feedback on writing errors with less (or even no) emphasis on content. Students must also have multiple opportunities to demonstrate they are learning writing conventions. If faculty members are not seeing writing improvement in their students, question number one should be whether the writing assignments are actually suited for producing writing improvement. I will say more about this under “best practices” below.

Develop a departmental writing curriculum. The reality is that many of our undergraduate’s level of writing proficiency is so poor that it cannot be brought to “job ready” levels in one writing-intensive class. If turning out students with college-level writing proficiency is seen as part of the value of your department’s undergraduate degree, then it follows that your department’s curriculum should explicitly address this goal in multiple classes. Any class can be a vehicle for writing instruction. We routinely implement writing goals in large-enrollment classes with topics as diverse as language science and neuroanatomy. What matters is there is time set aside for writing instruction and opportunity to complete writing assignments that are designed to improve writing. I have provided examples of slides from writing lectures from my own undergraduate classes in the power point notes.
I offer the following sequence of goals as a departmental writing curriculum. Goal one, in the words of my colleague Mary Alt, is to “hit them hard with the writing stick.” This means that grading of writing assignments conveys unambiguously that errors commonly committed by undergraduates are not acceptable at the college level. We do this by assigning short writing assignments and deducting points for every error of writing form committed, every time it is committed. Some students need to see the same grammatical or spelling error labeled for them 5, 10, or 15 times in the same text to realize that “I really do ‘name the egregious error’ a lot.” (Gayle DeDe, personal communication). For some students, numerous errors will result in earning no points on the first assignment turned in. A zero grade will certainly communicate that we are serious about good writing form, not just the content the student is attempting to convey. As the old adage goes, a person needs to recognize they have a problem before they act to correct it. I have yet to meet an undergraduate student who didn’t consider him- or herself a proficient writer, even when provided with evidence to the contrary. I often hear from students that they have never received a poor grade for writing in their other classes. For some students, this claim is verifiably untrue (we faculty do talk with each other after all). However, if all their previous writing assignments were graded primarily for content (see discussion of the goals for writing assignments about), it may be that they truly have never experienced any significant consequences for errors of written form. Be prepared to have students complain that it is not fair to receive no points when they put in “so much effort.” This is a teachable moment. In their post-graduation life, employers care about the product, not about the level of effort that went into it. Better to learn that lesson in the safe environment of the University than when their job rides on it.

Goal One typically is implemented in entry-level courses. This is important to convey the department’s seriousness of intent concerning writing development. If writing improvement is saved for upper-division courses, student are placed in a “bait and switch” situation where what was tolerated before is suddenly unacceptable. There are three critical principles to the entry-level writing experiences. The first I have already discussed. Make sure that there are clear and significant grading consequences for writing errors. I recommend that the entry level courses grade only for writing form if you want to see significant gains in this area. Beginning writers often focus on content to the exclusion of form, and prior writing experiences may have reinforced this. However, university students will concentrate on what their grade is based on. Grading for form only is an efficient method of shifting their focus during the initial stages of the writing curriculum. Grading for content can be added after students have had an opportunity to address the problems of their writing form.

To this end, providing students with a grading rubric can be instrumental. First, it communicates exactly what the student should be focusing on to obtain a good grade. Second, it eliminates any post-grading “negotiations” over how their paper was graded if they were told in advance exactly how the paper would be graded. I have appended the base grading rubric that I developed for my lower-division class. Finally, a rubric avoids the misconception among students that the grading of writing is necessarily subjective. A good rubric is so objective that any two people grading it will come up with the same grade. Consequently, with minimal training, teaching assistants can produce consistent grading with a good rubric.
I strongly recommend that the same grading rubric is used for multiple courses within the department. One reason why students do not build their writing skills over time is they appear to believe that the writing requirements of one instructor are idiosyncratic to that instructor. Once out of Dr. Plante’s class, they abandon the strategies they used to get the good grade there and default once again to their usual writing. If Dr. Alt also uses the same rubric, they quickly catch on that those strategies must be continued. The more classes that use the rubric, the more likely it is that students will infer that the rubric points actually represent a writing standard for the field rather than an annoying list of Dr. Plante’s personal pet peeves.

**Goal Two** is to master professional writing conventions. In this sense, “professional” should not defined narrowly as writing for those who work in communication sciences in disorders. It should instead be taken broadly as writing for anyone employed in a profession in which writing is required (i.e., virtually all of them). This includes goal like succinctly stating a position, supporting a position with evidence, and use of a professional rather than casual tone. The writing curriculum will need to continue to hold students accountable to the standards set under Goal One to continue the progress of students who need concerted work on their writing form. However, grading should start to incorporate some points for content. Bear in mind that the proportion of points for content should not make students willing to “take the hit” for poor writing form. This will occur if most of the writing grade is based on content rather than form. The basic rubric in our department has been modified for use under Goal Two so that it is clear that students must attend to content, but can still fail the assignment if they do not attend to form.

**Goal Three** might be christened “Write to Communicate”. This goal is typically implemented in upper-division courses. In our department, different upper-division courses offer writing assignments that reflect writing for different purposes (e.g., expository reports, clinical notes). The grading of these assignments reflect the content of the writing more so than grading for the previous two goals. However, it is important to remember that some students will still be mastering writing form. If they no are longer provided with a motivation (i.e., graded) for writing form, there is a good chance they will abandon this effort, which is clearly difficult for them. For these individuals, grading for form continues to be critical.

**Incorporate best practices for writing instruction.** It is useful to consider the target for our emergent writers in order to think about how to help them reach that target. Flowers and colleagues (1980, 1986) have written about the characteristics of advanced writers. These include:

- are goal directed
- understand their topics
- consider how paragraphs and sentences advance the goal
- use cohesive devises to tie sentences and paragraphs together
- aware of and anticipate readers needs
- attend more to meaning than form in writing
- make more revisions than non-expert writers
Beginning writers can be described by taking the opposite of each of these. They don’t establish a goal for their writing. Often they do not understand their topics well enough to write coherently about them. They don’t understand how to use cohesive devices, etc. I would add to this list that beginning writers often do not view writing as a product, but as an extension of their psyche. As such, it is perfect as long as it is honest and true to who they are as individuals. No need to polish. They believe that revision is something they were made to do in English 101, but they are past that now. If they consider revision at all, it only serves to check spelling and punctuation. The idea that the basic structure of the paragraphs might need revision is beyond many of our undergraduates.

Like knowledge of the nature of writing errors, knowledge of best practices in writing instruction is part of our professional scope of practice in speech-language pathology. Therefore, you should have faculty with expertise that can help improve writing instruction in your classes. Butler and Silliman (2002) provide this synopsis of principles of good writing instruction summarized from the literacy treatment literature. The principles include providing literacy models (e.g., reading articles written for professionals, journal articles, clinical reports). Students must have regular writing practice (e.g., distributed across the curriculum rather than concentrated into a writing intensive class). Writing exercises should incorporate planning, feedback, and revision. In fact, opportunities for revision are considered a benchmark of good writing instruction. There must be explicit instruction of specific writing skills. Finally, writing should be tied thematically to other activities (e.g., to reading articles, to observing cases, to public outreach).

Many of these principles are self-explanatory. It is more of a matter of whether the writing experiences within the department actually reflect these principles. However, the topic of revision deserves additional comment. Being able to revise presumes that the student has identified the problems in their own text (which further presumes they are treating it as a product to be shaped), or someone has provided helpful feedback to guide this process. However, eliciting feedback is a learned skill as much as producing text is a learned skill. Students who turn to a roommate for feedback are likely to get only feedback on spelling or punctuation. If there is a macrostructure problem, a focus on spelling is like commenting that an oar is chipped when the canoe is sinking. Beside the feedback provided with application of the grading rubric, it is also important for students to learn to elicit feedback before they are graded. This includes learning to edit for macrostructure and microstructure. It also includes learning how to elicit feedback on macrostructure, then microstructure.

An important maxim concerning beginning writers is that they are not capable of incorporating feedback on multiple aspects of their writing at the same time. This bears repeating. Beginning writers are not capable of incorporating feedback on multiple aspects of their writing at the same time. Those of us who have worked with language or learning disabled student see this regularly, but it also is true of all beginning writers. Now consider this point relative to how many of us edit the papers of our students and colleagues. We cannot help but flag the spelling errors even as we are trying to discern why the logic of the argument is lost across paragraphs. This mixed feedback is not only overwhelming for the beginning writer, but may detract from the goal of assisting them to make macrostructure changes if we
are clouding the issue with microstructure issues. Therefore, it is critical to focus at one level of writing structure at a time to facilitate improvement at that level.

For beginning and struggling writers, feedback concerning macrostructure should precede feedback at the microstructure level. This ordering is an efficiency issue. If paragraphs or sentences within paragraphs need to be reordered, they are often revised in the process. These revisions will over-writemany of the grammar, spelling, or punctuation corrections made to these sentences. It is also the case that macrostructure problems interfere more than microstructure problems in effective written communication. Therefore, if a student has problems at both levels, more gain for the effort is made by tackling the macrostructure problems first.

Writing in the graduate professional programs. This section is admittedly short for two reasons. First, at the University of Arizona, we just do not to see the scope of writing problems at the graduate level that we see for undergraduates. So I have less experience overall with problems at this level. Second, when these problems do occur, the same principles of providing additional opportunities to write, explicit feedback and opportunities to revise apply. More often, writing problems that occur in the graduate professional programs reflects a lack of familiarity with the type of writing the students are asked to do. Many have never seen the format of your clinic’s evaluation reports or progress notes. Some have had inadequate experience with the professional literature in the field, which affects their classroom writing. The solution is obvious. Give them models of the target. Annotate it so they know what information goes where. An example of an annotated report template is provided in the power point slides.

In terms of content, our clinical faculty kindly provided their own tips for my oral presentation.

Sections and Subsections Principle (Francis Harris, PhD). For formal reports, even when there are specific categories (e.g., Background, History), make an outline to organize your thinking about the information within the section. What is the most important thing to say? What information supports that proposition? What is the next most important thing to say?

It’s Not Just About Test Scores Principle (Jennifer Castiex, MS). For report writing, for every sentence that reports a test name and score, they need to follow-up with a comment on spontaneous behavior in that area.

The Read It Out Loud Principle (Julie Petersen, AuD). For all writing, read the report out loud before making it “final”. I find this often reveals places where wording is awkward, sentences too long, meaning uncertain, repetitions rampant, etc.

The Tell a Story Principle (Thomas Muller, AuD). For evaluation reports, tell a story. Too often students will follow a model or template for report writing without talking about the most important things: Challenges with testing, perceived differences in processing strategies,
difficulty physically putting a device in, that the family will be moving away in a month, etc. In other words, what would you tell your fellow student about the visit?

The Hit by a Bus Principle (Jennifer Casteix, MS). For therapy notes, I subscribe to the "hit by a bus" writing regimen. I tell the students: if you were hit by a bus tomorrow and couldn't work for two weeks, how well would the person who is covering for you be able to step into your shoes? Do you have any information on what motivates the child, how much scaffolding and repetition are you using, do parents participate, etc.
Part II: Professional Writers
doctoral students, post-doctoral trainees, and junior faculty

Doctoral and Postdoctoral students.

Things to remember. The goal for writing instruction for those whose intent is to develop an academic-research career is obviously different from that of the typical undergraduate student. Writing is the currency of the profession that doctoral and postdoctoral students have chosen to enter. Therefore, it is one of the most important things that they will do. It is also important to recognize that the mentoring in writing that they themselves receive will form the initial basis for how they mentor their own doctoral students. Therefore, it is important that your students be exposed to both the writing you do (e.g., manuscripts, grants, white papers), and the writing instruction you do (e.g., one-on-one mentoring, classroom teaching). Your example will have far-reaching consequences and deserves a thoughtful approach.

In every lab where students are trained, certain values are conveyed either explicitly or implicitly. The values for my own lab could be summarized as follows: Writing is the second most important activity of the lab. Data collection is the top priority only because when there is no data coming in, there are no papers going out. Second, writing happens all the time. It is not relegated to special days or to big blocks of time. If students drop in, they will find me writing something nine times out of ten. Writing means re-writing. I tell students that I want to see drafts, early and often. I tell them to expect approximately seven drafts to be happy with a section of text. So if we are on draft four, we are progressing along nicely. Finally, a written product is done when it meets professional standards and not before.

Although your values may vary from mine, we all have writing standards. How are these values put into action? Values must translate to your expectations for behavior. Examples of values translated to behaviors might include the expectation that all doctoral students will own the APA manual. Another is that all doc students will be engaged in projects that involve contributions to the writing of manuscripts. All students will schedule regular writing time and hand in drafts weekly. Everyone in the lab will edit every grant that goes out of the lab, whether written by a faculty member or a fellow student.

As a brief editorial aside, I would also ask my colleagues to consider carefully the writing they invite their students to undertake. Not all writing is valued equally, and the types of publications that further a student’s career may depend on the type of position the student intends to take after graduation. Having said that, through my service to ASHA and position as department head, I am in a position to see the curricula vita of many doctoral students and junior faculty. I see an alarming number of book chapters and editorial positions for people ostensibly headed for or just beginning careers at research-intensive universities. The reality is that these time-consuming activities do not help them get grants and often do not count as much as data-based publications in the tenure process. I often get the sense that well-meaning advisors are using book chapters in particular as an initial writing experience (or to
help move ahead an obligation of their own that has become overdue). Given the time involved, and
the benefit to the student, I suggest that these types of publications are no favor to the student when
they come at the expense of data-based journal articles. Learning to say no to these so-called
opportunities is a good skill for both doctoral student and mentor alike.

**Mentoring writing of doctoral and postdoctoral students.** It is worth reviewing the characteristics of
advanced writers set out by Flowers and colleagues (1980, 1986), described in Part I. These writers are
goal directed, understand their topics, consider how paragraphs and sentences advance the goal, use
cohesive devises to tie sentences and paragraphs together, aware of and anticipate readers needs,
attend more to meaning than form in writing, and make more revisions than non-expert writers. If I
were to characterize expert writers of journal articles, I would add that they have a story to tell and tell
it convincingly. They see writing as an iterative process (going back and forth between sections to tie
everything together) rather than a linear process (start at the beginning and write to the end). Finally,
they see writing as a product that can be evaluated systematically and objectively. Flowers and
colleagues also characterize the writing process of advanced writers as including a planning phase
(which includes elements of idea generation and literature review in our profession), translating
information into written form, and reviewing macrostructure and microstructure elements.

Doctoral and postdoctoral students frequently come to us with some sense of themselves as writers.
They have developed attitudes towards writing and strategies that may or may not be effective for the
next stage in their careers. Our job is to move them to the advanced writing stages that will support a
necessarily writing-intensive career. I have encountered two main approaches to mentoring writing for
doctoral students in particular. I have even used both methods at different points in my career. One I
will refer to as the “start-to-finish” method. In this method, doctoral students take the lead on writing
all aspects of a manuscript. The main benefit of this method is that it provides students with a strong
sense of the manuscript as a whole, how all sections of the writing fit together, and the time that it
takes to complete a project. In addition, the student is likely to develop a sense of ownership of a
project they are in charge of completing. There are several drawbacks to consider. The first is that it
takes considerable time for a novice writer to write a full manuscript. Therefore, this method limits the
number of projects the student can undertake during their doctoral career. It is also the case that this
method limits flexibility if the student could benefit from repeated practice with certain aspects of the
writing. Finally, this method may feed in to the idea that writing requires big blocks of time to
undertake, simply because the project is seen as “big” by the student.

An alternate method is one I call the “project parts” approach. In this method, students are given
responsibility for sections of a manuscript, rather than the whole. Sections could be as large as a
discussion section or as small as the description of inclusion and exclusionary criteria for research
participants. This allows the mentor to develop a series of writing experiences that might be ordered
from the more formulaic (e.g., a methods section) to those requiring more integration of information
(e.g., a discussion section). This method allows more flexibility for matching the specific types of writing
experiences to match the student’s needs and experience in the lab. Furthermore, it allows the student
the chance to provide substantive input to multiple projects, increasing their authorship opportunities.
This approach is also more realistic than the start-to-finish model for team science projects in which writing might be divided between multiple collaborators. The drawback of the project parts approach is that it is more difficult for students to develop a sense of how the parts fit into a coherent whole. In addition, the project parts approach assumes that the student’s lab or program can offer enough different research experiences to eventually cover all their writing needs. I currently lean towards the project parts approach, although I myself was mentored in the start-to-finish method. The bottom line is that there is more than one way to provide writing experiences and the way you were mentored may not be the best fit for the students you have now.

No matter what mentoring method you employed, regular writing time is important for developing productive writing habits. Any novelist I’ve ever seen interviewed has described a regular writing schedule. As a future academic, developing the habit of regular writing is critical. First, the experience of writing regularly will help students develop a sense of how much time and effort a given writing task is likely to entail. Novice writers both under- and overestimate the time it takes to produce a first draft, as well as the number of drafts between the first and final draft. Regular writing provides this insight. As important, students who write regularly lose the dangerous idea that writing can only be done productively when big blocks of time have been set aside for this purpose. I will return to the myth of the “big block of time” below.

When students need more practice. For some students, writing in the context of producing publishable manuscripts is not sufficient to close the gap between their current proficiency and the skill level they will need as faculty. I find it helpful to think of additional writing activities that also serve a useful purpose in their doctoral studies. Examples include having students produce brief summaries of research articles related to their research. Doctoral students who are still struggling with aspects of writing form can be asked to help grade undergraduate writing in classes you teach. Often applying a grading rubric to the work of others makes the student more sensitive to these errors in their own writing. In addition, you can use this experience as a springboard to discuss the writing instruction you do at the undergraduate level.

Producing reviews of unpublished manuscripts promotes professional writing skills as well as introducing a professional skill. Although mock reviews of manuscripts submitted by your lab are always acceptable, it is important if you are reviewing manuscripts received from a journal that journal policy allows parallel student reviews.

When students attempt their first review, I find they come to the task with a focus on the trees, if not the leaves on the trees, at the expense of the forest. A laundry list of sentences that could be better phrased does not address whether work should be published. Student reviews provide an opportunity to discuss whether the authors were able to build a cohesive picture of what the work contributes to the literature. Often this involves macrostructure issues including how information is ordered and linked within the manuscript. Similarly, grant reviews involve a slightly different set of skills than journal reviews, and it is important for students to understand this before they sit on their first review panel.
Reviews of grants going out of the lab provide an opportunity to learn the distinction between reviewing grants and manuscripts while simultaneously offering another opportunity to hone writing skills.

Having the doctoral student teach in classes that cover writing is another back-door method of enhancing writing skills. Useful classes may include undergraduate language science or language acquisition classes in which components of literacy and literacy development are covered. Adult aphasia or developmental language disorder classes that cover the nature of writing impairments and writing intervention are also potentially useful.

**Understanding common writing problems.** Let us start with the base assumption that all our doctoral students are bright and have enjoyed an academic record that was sufficiently strong to earn them admission to the doctoral program. In some cases, what looks like a writing problem may actually be another sort of problem entirely. For example, does the student understand the target his or her writing should resemble? This knowledge comes from exposure. We may assume that no student could get through two degrees in Communication Sciences and Disorders without having read peer-reviewed articles. But, unfortunately, this can happen. Such students may simply be so unfamiliar with the journal format that they produce what looks like a jumble of information rather than a methods section. Students provided with a model are more likely to approximate the target than those left to flounder on their own.

Similarly, students who are new to an area inquiry may not have had sufficient time to form a conceptualization of the major issues that is sufficiently realized to translate into written form. They may lack the “back story” that precedes the current research and provides a mental framework for understanding how the current work fits into a broader picture. It is important to dissociate a problem in conceptualization from a problem involving writing mechanics. Steps that support writing mechanics will not be effective if understanding of the material is the real problem.

**Strategies for writing improvement.** As in the discussion of undergraduate writing, actual writing problems occur at the macrostructure level, the microstructure level, or both. The same basic axioms about treatment also apply. Treat macrostructure before microstructure. Be aware that developing writers find it difficult to process feedback at both macro- and microstructure levels simultaneously. In fact, for some writers, feedback may need to address the flow of information across paragraphs before organization of ideas within paragraphs are addressed, even though both of these are macrostructure level issues.

Many faculty employ some degree of one-on-one instruction for mentoring writing at the doctoral and postdoctoral level. I do as well. However, my own strategy for this has evolved, accelerated by the time constraints imposed on me by my duties as a department head. My initial method involved receiving drafts from students, which I took home with me (because I preferred editing on my couch). I then marked up the draft with edits and explanations of those edits. Then I met with the student to explain the edits. After I became department head, I started to take more seriously the organizational principle of “as much as possible, touch everything just once”. My editing method clearly involved a duplication
of effort. I now require students to bring their electronic drafts to our weekly meeting and I edit “live” with them sitting beside me. I talk my way through the edit so that they hear my reactions, positive and negative, to the text. Minor edits are made on the spot. More extensive edits are flagged for the student to address after our meeting. One advantage to this method is that the students get a first-hand demonstration that working with text is an iterative process rather than a linear process. The student then sees that I will return to earlier text to assure that it ties in with later text to produce an integrated whole. I particularly like this approach because it “makes visible” the typically covert process of composition and editing.

Although I can use the editing process to model some aspects of the writing process, doctoral and postdoctoral students tend to come to us with well entrenched processes for their own writing. I find that these processes can often be characterized as reflecting one of two writing methods. The first is reflected by students who say they just need to get something down ‘on paper’. ‘On paper’ would be a euphemism for ‘on disk’ these days. These students tend to use writing as a way to get their ideas out and into a form that can be worked with. The second set of students includes those who outline first and write second. This process has the advantage of imposing coherence at the macrostructure level before the composition of individual sentences begins. However, some writers find that organizing the macrostructure interferes with the free flow of ideas that they need to get started with writing. So this method is not one that works for all writers.

It is important to acknowledge that either method can be used productively. However, when I have a student who has macrostructure writing problems, it is almost always a student who uses the get-something-down-on-paper process. The critical but missing next step is to then outline the initial verbal dump to determine if some re-arrangement of the macrostructure is needed. In other words, they need a write first, outline second strategy. In this way, the student can start writing with a strategy that works for them and is comfortable. Step two is to determine how ideas should actually be ordered to build the story they intend to tell.

Doctoral students who are learning the conventions of professional writing may make some assumptions that are not true and counter-productive to clear writing. One is that complex ideas require complex writing. In fact, some assume that complexity is an index of importance. As demonstrated by the cartoon in the power point slide, the key to writing an article that will become widely quoted is to make it understood by the widest possible audience. Other principles may need to be explicitly stated. One example of a principle for scientific writing is “don’t make the reader work”. An example would involve providing a conversion for voxel dimensions for an MRI scan, even when this information can be calculated based on the scan protocol specifications provided. It would also include stating explicitly the conclusions that a set of literature suggests rather than leaving the reader to correctly (or incorrectly) infer the principle on their own. Rule-based feedback might also include grammatical rules. See http://teachers.norreg.dk/mb/gram_projekt/grammarhumour.htm for great examples of grammatical rules for English. There is also a plethora of writing guides available for purchase. Most of us are familiar with the classic Elements of Style (Strunk & White, 2000). Your textbook representative will also happily introduce you to any number of similar guides written to
support student writing. For a humorous approach, I can recommend *The Dictionary of Disagreeable English* (Fiske, 2006) which covers commonly misused lexical items. Once these resources are in the student’s hand, our support for correcting these errors can be faded. Continuing to serve as the student’s frontal lobes for applying this information will only serve to promote dependence on you as an editor. Their transition to a faculty position should be marked with pride about their new independence, not panic over the loss of their best editor.
Supporting Faculty Writing.

Who are the poor writers? It is entirely possible that you may hire a junior faculty member only to discover that their writing skills are inadequate. With the tenure clock ticking, this situation may now be quite serious. As a department head, it might be beneficial to mentally review the faculty member’s strengths that resulted in their hire. It is good to be reminded of the contributions this person can make to your program as you address the issue of writing. The next step is to marshal your resources. If writing is poor because of non-native proficiency in English, you may wish to contact campus resources such as English as a Second Language (ESL) program. Such programs often provide support for foreign students and may be able to assist a faculty member as well. Many universities also have writing centers that offer writing improvement workshops or even individual tutoring. Finally, you may have clinical faculty who have expertise in either ESL or literacy expertise. These individuals can provide strategies to support the faculty member to continue to develop specific proficiencies.

You may also need to assist the faculty member with career strategies that will promote productivity despite their current writing deficits. You may serve a roll in introducing potential collaborators who can assist in moving projects to publication. This is a “strengths in numbers” approach. If the addition of collaborators is unlikely to provide the needed productivity boost, you may need to have a difficult conversation about the career path the faculty member has chosen. Many of us, particularly those of us with clinical credentials, can have productive academic careers outside the tenure track. In addition, research-intensive universities have positions for research scientists (faculty lines) or research specialists (staff lines) who are employed outside the tenure track. Although it may be a difficult mental shift for the faculty member who has dreamed of a tenure track position, this is not the only avenue for a Ph.D. to make contributions to education or research.

A somewhat more common reason for faculty to experience writing problems is lack of familiarity with the types of writing they are expected to do. Even the most productive doctoral student is likely to only have a hand full of publications, which limits the writing experience they can bring to their first job (assuming they did not complete a post-doc). Furthermore, if their mentor did not happen to write a grant during their tenure as a student, they may never have seen a grant. Lack of familiarity with writing formats is a solvable problem for an otherwise competent writer. The solution is the investment of mentoring time focused on professional writing. As a mentor, you may need to back up to support skills that the faculty member should have been built during the doctorate. It is important that the mentor not just serve as an editor, but to build the faculty member’s ability to analyze the form and content of their own writing. It is also helpful for new writers to serve as journal reviewers as a way to see models of good (and poor) writing. This may also require mentoring support as new faculty who produce abysmal initial reviews are unlikely to be invited to serve in this role a second time. While it is true that all this mentoring is time consuming, the investment of time should be seen as a retention strategy. After all, it is also time consuming to replace faculty who fail to be retained.
Not all new faculty are open to the level of mentoring that might be required to fully support their writing development. For these individuals, it might be helpful to get advice from a neutral source. Books mentioned earlier in these proceedings are equally useful for junior faculty. In addition, there are a number of books on academic writing specifically. Two I like are Silvia’s *How to Write a Lot* and Boice’s *Professors as Writers: A Self-Help Guide to Productive Writing*.

**Underperformance in publication numbers.** It is important to understand why a new faculty member is simply underproductive. Some reasons are problems that you as a department head should solve. Was there some administrative hold-up in getting materials and equipment purchased for the lab? Is the faculty member struggling with unfamiliar Institutional Review Board procedures? The bottom line is that if there is no data coming in, there will be no papers going out. You may be able to remove some obstacle that is preventing early productivity.

It is just as likely that the new faculty member is laboring under some false conceptions concerning academic writing. Silvia (2007) discusses a number of specious barriers to writing a lot. These include claims that there isn’t enough time to write, some prerequisite conditions are necessary before writing can begin, better resources are needed, the writer needs inspiration, or that the writer is experiencing writer’s block. Common to many of these excuses (and that is what they are) is the idea that writing requires some special set of circumstances to occur. The most productive faculty have learned that this could not be further from the truth. In fact, Boice (1989) demonstrated that writers who wrote in brief but regular writing periods actually produced more pages over time than those who set aside big blocks of time. Writers write all the time, on slow computers, seated on old chairs in front of World War II era metal desks, whether they are particularly inspired or not.

It is critical to stamp out any notion that writing is some form of “special event” that requires special circumstances to be accomplished effectively. For an academic, writing must occur daily. It is important that this expectation be conveyed unambiguously. It is better to be blunt than misunderstood with tenure at stake. I offer the following “script of the day” for this purpose:

“Writing is the currency of the academy. It is absolutely central to your job description. If you are not writing weekly, if not daily, you are not doing the job we are paying you to do. Given its central role in your job, I expect that you will dedicate time to it every day.”

It is helpful to back this script up with some tips to improve writing productivity. Most books on writing productivity emphasize a regular writing schedule. Silvia (2007) recommends harnessing the academic’s natural geek tendencies by tracking “the data” in terms of adherence to the schedule and graphing the number of words produced per session. A writing schedule worked for me in time B.C. (before chair). As a chair, other people’s schedules often intrude on my own. In self defense, I adopted a new approach to writing that allowed me to actually increase my output despite a schedule that is typically a disaster. The system is simple. I look at my calendar and determine how many minutes I have until my next appointment. If it is 15 minutes, I do a 15 minute writing job. Fifteen minute jobs include a subject description or the first paragraph of a discussion section. If I have 30 minutes, I do a 30 minute jobs.
These might include running statistics or work on the body of the discussion. Rather than work on manuscript parts in sequential order, I work on them in the order they fit the time I have. I can attest that a whole lot of writing can happen in very short windows of time.

Another tip I have found helpful came from a long forgotten author of novels I once saw interviewed on a morning news show. This gentleman said that he not only kept a regular writing schedule, but at the end of each writing session, he left something trivial to start with the next day. This way, even if the author was uninspired to write, at least he could do this one trivial thing. He found that starting on “something” usually drew him into the writing so that he was fully engaged and productive once the trivial thing was completed.

If more serious methods are needed, the good news is that “therapy works.” In a meta-analysis of writing interventions, McGrail Rickard and Jones (2006) reviewed studies on academic writing improvement. Studies that focused on setting writing schedules, enrollment of faculty in writing courses, the use of writing coaches, and the formation of support groups all tend to show positive effects on output.

**Mentoring on time allocation.** It is common to hear the complaint that the faculty member cannot open up enough big blocks of time in their schedule to complete writing tasks. I’ve covered the reasons why this is not necessary, and indeed often counter-productive (Boice, 1989). In fact, I used to recommend faculty designate time that they could stay home to write. Now I try to advise them about fitting writing in whenever there is time in the day. This leads to the next excuse: the complaint that the faculty member can’t find time during the work day. In that case, it is critical to find out where the time is going. Most of us are wildly bad at accounting for our time. This is why lawyers have to track their time in small increments throughout the day. There are many among us whose productivity is actually inversely proportional to the amount we have to do. Others confuse business with productivity (Boice, 1989). We may have a long “to-do” list, and it is so much more satisfying to cross five small service obligations, clear the email, and organize the files off the list than to cross off just a single writing item.

The way to discover where the time is going is to have the faculty member keep a time diary for a week or so. The process may be sufficiently illuminating that no further mentoring on the subject is needed. It may also be the case that procrastination is occurring because the faculty member has a serious fear of failure. They know they should be writing but they don’t. Subconsciously, the individual will chose non-important tasks because it is better to fail by avoiding writing than to fail *despite* focusing on writing. It is good to acknowledge the fear, but not to give in to it. If faced with persistent procrastination on the part of the faculty member, I recommend the following script of the day:

“You are bleeding away your time on secondary activities. This cannot possibly give you a sense of accomplishment at the end of the work day. Be sure that at the end of every day, you can point to one activity that advanced you towards the goal of tenure.”
Given the tenure stakes, one might wonder why new faculty do not develop a laser focus on writing productivity. I suggest this is part of the American character. We live in the present. The future is always far off. Until it isn’t. But even if tenure seems like a distant target, it is imperative that new faculty align their activities and time with tenure expectations. They need to learn to recognize avoidance behaviors when they occur. Implement a writing plan. Learn to manage the drive to “cross things off the list” rather than choose the important jobs first. I keep two lists physically taped to my desk. One contains “administrivia”. These are things that need to be done, but are not necessarily the most important to my career as an academic and researcher. The other list is my important list (85% writing related). I do the administrivia when writing jobs on my list do not fit the time I have at hand. Administrivia is also good at the end of the day when I’m flagging. The point is that the two lists segregate what is important from what just has to be done, reminding me of their relative priorities.

**Understanding expectations.** If you are faced with new faculty who are under-performing, you may need to consider whether they truly understand the institutional expectations. Part of the problem is that university guidelines for promotion and tenure are often too broad to guide day-to-day behavior. However, your departmental performance review can serve this role. Performance reviews tend to come in two flavors: unstructured and structured. Unstructured reviews involve the employee writing a narrative of what they have accomplished and someone (or some committee) reviewing this text. Structured reviews tend to list a series of job expectations or functions and the employee indicates which ones they have met in the past year. The structured review process has the dual benefit of providing a list of the job duties expected and it is very obvious to the employee, at the time they complete the review, whether or not what they have spent their time on is what is expected. In other words, the performance review conveys what the job is all about. Our own performance review lists all possible faculty activities that are consistent with the mission of the department and the university’s expectations for promotion. Being science geeks, we go one step further by weighting the value of different activities so that their relative values are also apparent. It takes a bright faculty member about a nanosecond to realize that publications (at 4 points each) will make them look much better on their annual review than presentations (at .5 points each).

It is also worth considering how the wider faculty can become involved in creating a culture of writing support. One effective strategy we have employed is referred to as brown-bag mentoring sessions. This is a lunchtime meeting that anyone can attend, but no one is required to. The newest hires choose a topic that they want to discuss. These include topics have involved teaching strategies, time management, training students in the lab, and research ethics. But every year, someone asks to talk about increasing writing productivity. This allows faculty to share their best tips and everyone, senior faculty included, learns something. Out of this has grown a junior faculty agraphia group (modeled after the writing group described in Silvia’s 2007 book). We also use our performance review to foster a culture where peer review of writing is expected and expected. In our department, peer review of a colleague’s grant is worth the same number of points as actually submitting a grant yourself. This follows the management principle that you need to reward the behaviors you want to see. We want to see grants awarded to our department. Therefore, we reward activities that are likely to increase the odds that a submitted grant will turn into a funded grant.
These types of activities broaden the mentoring available to junior faculty. Harnessing the wisdom of the group distributes the mentoring load. This may also be more comfortable for the new faculty member who can get diverse input without feeling like they are being monitored by their assigned mentor or the department chair. However, it is worth noting here that mentoring, like writing, is a learned skill. However, that is a topic for another day and another twenty pages.

References


Fun websites for horrifying examples of muddled and mangled writing

Mangled English written by highschool and college students [http://history-world.org/essays.htm](http://history-world.org/essays.htm)

Cake Wrecks, When professional cakes go horribly, hilariously wrong [http://cakewrecks.blogspot.com/](http://cakewrecks.blogspot.com/)

Bizarre computer decisions on what should have been written [http://damyouautocorrect.com](http://damyouautocorrect.com)

Base Writing Rubric
Elena Plante, PhD
The University of Arizona Department of Speech, Language, & Hearing Sciences

The paper is off topic (see syllabus)
halfof total points off

The paper does not have a unified theme
10 points off
e.g., the paper jumps from topic to topic within a general theme
the references the paper is based on are on different topics

Paragraph order is not ok
7 points off for any paragraph that is out of order
maximum of 14 points off
The order of the paragraphs should flow logically

Paragraph does not establish a topic and have one coherent theme:
4 points off per paragraph with this problem
e.g., paragraphs that mix together too many topics
no topic sentence if one is needed (topic sentence has to be early
in paragraph but not necessarily the 1st sentence)
topic sentence is unclear or a poor fit for the paragraph topic

The ideas conveyed by the sentences within do not flow logically
2 points off per paragraph with this problem
e.g., sentences contain too many ideas to be coherent
sentences are not ordered by time or component
problems with paragraph transitions
problems with the paper conclusions
information is missing

Sentences lack either a subject (noun) and a predicate (main verb)?
2 points off per occurrence

Use of orphan phrases
1 point off per occurrence

Pronouns do not correctly reference the last noun of equivalent number and gender
1 point off per occurrence

Evil passive tense was used when it could have been avoided.
.5 point off per occurrence

Transitions words for linking sentences used incorrectly
1 point off per occurrence

References are cited correctly in the text and on the reference list (see syllabus)
1 point off if problem occurs in the text
1 point off if problem occurs in the reference list (5 points off for no reference list)
5 points off for every reference short of the required 4 peer-reviewed references

**Grammatical errors of a garden variety** 1 point each

**There are word specificity problems** 1 point off per occurrence
  e.g., Words are too general in meaning
  Words don't mean what the author intends
  Words are too informal

**There are spelling errors** .25 points off per occurrence

**There are punctuation problems**.25 points off per occurrence