

There are two main goals in assigning writing in a subject-matter, discipline-focused course: *writing to demonstrate learning* and *writing to learn*.

Writing is most commonly used for *demonstrating learning*: for this goal the writing should be good--it should be clear and, well . . . right. It is high stakes writing; it counts for a lot in the final grade. We all know and value this kind of writing so I don't need to argue for it here, but let me give one more reason why it's important. If we don't ask students to demonstrate their learning in essays and essay exams, we cannot trust our final grades. Students often *seem* to know things on short-answer or multiple-choice tests that they don't really understand.

Writing to learn is less commonly used and valued, so I want to stress it here. Of course students often learn a great deal from the first kind of writing--high stakes writing designed to test their knowledge--but there is a kind of *low stakes* writing that is particularly good or helping students take in, understand, and remember the subject matter of a course. It's especially useful in helping them figure out what they don't yet know. Even though low stakes writing-to-learn is not always good *as writing*, it is particularly effective at promoting learning and involvement in course material, *and* it is much easier on teachers--especially those who aren't writing teachers.

OCCASIONS AND KINDS OF WRITING

In-class writing:

- 8 minutes of writing at the start—to help students bring to mind homework reading or lab work or previous lectures.
- 8 minutes at mid class when things go dead or after a question—to help students think of things to say
- 8 minutes at the end of class or lecture—to get them to think about what's been discussed.
- 5 minutes at the end of class to write *to us* about what they learned that day: what was the main idea for them, what was going on for them during that class. Not only will this help them integrate and internalize the course material; it helps our teaching by showing us what's getting through and what isn't.

We can treat this kind of writing as entirely private or as a spot quiz--or anything in between. I find it important to collect these pieces for a while at the beginning of a course, and I often have students share them quickly with a partner or small group. I don't grade them or comment, but I insist that students use the writing to try to think the material through on paper. After a number of sessions like this, they discover the usefulness of this kind of low stakes writing, and I can let these pieces be entirely private--or just have them share with others but not me. That is, I can spare myself having to read them--and students still benefit.

However we handle it, this kind of writing helps students get more out of discussions and lectures. In a lecture or discussion, often only one or two minds are at work in the room; when I ask students to write, most minds are at work.

Journal writing. Many teachers enhance learning by requiring students to keep reading journals, thinking journals, or lecture journals. The goal is to get students to connect what they are studying with the rest of their experience, thoughts, and feelings. Teachers handle journals in various ways: exhortation alone, periodic inspection but no reading, fast browsing, full reading, responding, grading. It is also productive to get students to trade journals weekly with a peer for a response.

Think pieces. This is the name I give to writing that is a bit more thought out and worked over--but not yet an essay: exploratory but not merely freewriting. I tell students to think of these pieces as thoughtful letters to an interested friend. Teachers often assign weekly think pieces about the reading or homework or the issues they want students to consider more carefully. They make it a simple, regular, matter-of-fact requirement--"no big deal"--but they *enforce* it by making substantial credit depend on doing them all. One can read think pieces quickly and just check that students have engaged the task, or else read them carefully--depending on the size of the class.

Think pieces are a productive and nonpunitive way to make students do the reading on time and come to class. When students have done the reading and thought about it before class, they get much more out of discussions or lectures or labs. Think pieces provide a way to specify an intellectual *task* for students to engage in before class: e.g., compare two concepts from the reading; compare a concept from the reading to some experience from their lives; work out a definition. I often take 5-10 minutes at the start of class for students to read them outloud in pairs or in small groups. Suddenly they know a great deal more than they did.

Essays that count--to demonstrate learning. These are not just "writing to learn"--fruitful explorations or wrestlings as above--but genuine essays that must be well revised: clearly written, coherently organized, carefully copy-edited, and typed. I often invite students to build an essay from a previous think piece, but I stress that these essays are different in kind--much more demanding. Re-thinking is needed, not just cosmetic touching up. Otherwise some students assume, from the exercises in low stakes writing, that I am always completely casual about writing. It makes sense to evaluate these essays strictly and perhaps comment on them (more on these matters below).

When students understand that they are being asked for two very different *kinds* of writing in the course, their essays get better because of their extensive practice with low stakes think pieces, and their low stakes writing gets more thoughtful when they experience it as practice for the high stakes essays (and relief from them too).

Term papers. I find term papers involve maximum work and minimum learning. I call them "terminal papers." Students often pad them. Students seldom learn from our comments since the course is over before they pick up their papers--*if* they pick them up. I find it more productive to use several shorter essays--even (perhaps especially) for high stakes writing.

Portfolios. Students usually get *much* more out of a course when they are asked to go through all their writing and other projects and make a portfolio out of the best and most interesting pieces. (I always ask for a few selections from private or journal writing, some think pieces, and some essays. I want a range of types. I always ask for an "interesting failure.") The most important part of the portfolio is an essay that introduces, explores, and explains the pieces in the portfolio and talks about what the student has learned from these pieces of work. This self-reflexive writing provides a kind of meta-discourse that leads to new understanding and enriches fragile, incipient insights.

DEGREES OF RESPONSE TO WRITING

No Response: private writing. I find it a good use of my authority to require private writing. Private writing gives students the safety to learn fluency in writing--to learn how to put down words on paper as easily and naturally as we speak. Private writing also helps students learn one of the highest goals of education: how to carry on a dialogue with oneself. Adolescents in particular need this ability since they feel so much pressure from peer groups only to think what is acceptable. And of course private writing is easy on us: students get warmed up and their writing improves while we don't have to see it. Students learn more from writing than from our responses to their writing.

But I sometimes hold off completely private writing for a week or two and collect all the low stakes writing and read it quickly--till students learn how to use low stakes, ungraded writing for focused thinking.

Sharing but no feedback. Sharing puts more pressure on students to make sense and not look ridiculous, yet it still gives them considerable safety to enjoy writing and think adventurously. Like private writing, it helps students learn to write about the subject matter of the course without stiffness and jargon, and often leads to good insights. The lack of any response or grade keeps the stakes low, yet they get the enormous benefit of *being heard*.

Students take their own thinking more seriously when they have to read their writing aloud and listen to that of others. It takes only five minutes for students to share their writing in pairs; ten minutes in small groups. This can be writing they have done in class or at home. They can simply read or else go on to discuss the ideas (perhaps about the homework reading). This takes no time away from course material--indeed it puts more course material in students' heads for the discussion or lecture to follow. Speaking and hearing their words also helps them learn to write much more clearly and naturally--without any instruction or even feedback at all.

I find it helpful to be this kind of audience too. That is, I regularly assign writing that I just collect and read--and make no response. (Or I'll scrawl "Thanks" at the bottom.) Most of our discomfort with student writing comes from having to comment and grade. Yet students benefit--and my teaching benefits--when I just read.

Publication is a striking and effective way to share think-pieces and short essays (or stories). You can just ask students to bring ten or fifteen copies of their essays and then assemble class magazines on the spot. (A four page double-spaced essay fits on one sheet--single-spaced and back-to-back. Get someone to volunteer to make a cover.) If there are more than fifteen people in the class, not all magazines will be the same. At UMass Amherst, we collect a lab fee and publish a class magazine four times a semester--using a college copying facility. Unless you have used publications seriously (they become one of the texts for the course), you may not realize how powerfully they can help students learn material and take their own and each others' writing seriously.

Peer feedback or student response groups. Students *can* learn to give interesting and helpful feedback to each other's writing: in pairs or in small groups, in class or at home, orally or in writing. Students are most valuable to each other not as diagnosticians or advice givers but as *audience*--as readers who can reply with their reactions and thoughts about the topic. Thus, we needn't think of peer feedback as "time taken away from biology and given to writing," for we can direct their feedback to matters primarily of *biology* (especially with response sheets or other guides).

Some important points to keep in mind about peer responding: students need some training and guidance at it; it takes substantial time if done in class (less if they work in pairs), but we can assign for homework the task of giving oral or written feedback to each other. In short, peer feedback may be more trouble and take more "management"; but it's easy to move slowly into it by starting with lots of sharing and little or no feedback. After all, the sharing process itself produces much of the learning, and sharing itself is the best preparation for peer responding.

About Teacher Responses or Comments. Commenting is not so onerous when students have already done *lots* of writing that we haven't had to see and that we've read but not commented on. They are then much more skilled when they do higher stakes writing to demonstrate their learning. And the main thing to keep in mind is that if you are not teaching a writing course, there is no law that says you have to comment. If it's high stakes writing-to-demonstrate-learning, your only real obligation is to assess whether the learning has been demonstrated and give grade of some sort. But if you want to give some comments, here are some suggestions.

There's a quick and easy form of "proto-commenting" that is remarkably effective--especially appropriate perhaps for think pieces: putting straight lines alongside or underneath strong passages, wavy lines alongside or underneath problem passages, and X's next to things that seem plainly wrong. I can do this almost as fast as I can read, and it gives remarkably useful feedback to students: it conveys the presence and reactions of a reader.

Non-English teachers sometimes argue about whether they should comment on "style." I would defend both sides in this dispute. On the one hand, it is obviously quicker and easier to restrict our comments to the content--to the places where the student is demonstrably wrong or right about biology. That doesn't mean acceding to garbage; it just means acceding to ungainly or awkward writing that nevertheless really *does* say what needs to be said--that really does manage to communicate the thought. In short, even if we don't "grade on style," there is no need to give passing grades for COIK writing (Clear Only If Known already): writing that only makes sense to readers who already understand what the student is trying to say. Grading down for COIK writing is not grading on style, it's grading on content. That is, unless students can explain the material unambiguously--not just throwing around key words and phrases--they probably don't understand it.

But on the other hand it's important to realize that non-English teachers *can usefully and easily* grade and comment on style. That is, grading on style doesn't mean you have to make "English teacher comments." There's no need to explain *why* something is poorly written or how to fix it in order to count down for the problem. It's best to comment in everyday terms or in whatever language people in your field might use (e.g., "This is wordy / roundabout / awkward / naive"). Plain talk by non-English teachers is often *more* effective with students. That is, it's better to say, "Don't sound so pompous" than to say, "Don't use so many passives and nominalized constructions." Most of all, you have a great advantage over us English teachers: when you say, "This is unacceptable writing in our field," students tend to believe you; when we English teachers complain about style or clarity, students tend to dismiss it as just our occupational hang-up.

Two-fers: I sometimes wait till I have two pieces by each student before reading and commenting. For example, I might comment on two think pieces (and perhaps even ask for an essay on a subsequent week that builds on the better of the two). With this approach I make just one comment that's not much longer than a comment on only one paper--but it applies to both papers. It's easier to say, "This one is stronger than that one for the following reasons," than to figure out what to say about just one paper--especially if it is problematic or bland. These comparative comments are usually better at helping students improve because I can point to what worked rather than what didn't.

I sometimes give feedback to essays on a cassette tape: I ask students to hand in a cassette with their paper. I can just talk as I read.

ABOUT GRADING

It simplifies things simply to use fewer categories: e.g., pass/fail or ok/unsatisfactory or ok/strong/weak or check/check-plus/check-minus--especially for more informal pieces and think pieces--sometimes even for graded essays. This means fewer distinctions to make and saves time and agonizing and student complaints over small distinctions.

About think-pieces: I give an ok if they engage the task; I don't look for elegant writing or good organization (and I take them handwritten); I don't mind if they reflect perplexity or change their position in mid-course like good letters often do; I don't even mind if they come out dead wrong--as long as the student wrestles with the material. In short, what I insist on for an ok are those features which--if necessary--I can identify in 15 seconds of skimming.

I read think pieces a bit more carefully (and perhaps give check pluses and minuses) if the class is small enough and I want to push students more. Any system works if you are clear about your standards. I care more about getting students to work through intellectual tasks than about giving them fine-grained evaluations of their work.

But I am *not* arguing against hard grading. The most efficient way to get good work from students is to expect it and demand it. Since lots of casual ungraded writing can give students a sense that we are not interested in high quality work, there is something to be said for having a graded essay relatively early in the term and grading it with demanding standards--so that they can feel the true dialectic or schizophrenic relationship between writing to learn and writing to demonstrate learning.

In short, if you insist on strong writing on serious essays, students will usually provide it if that's the only way they can get a good grade--and if you give them lots of practice writings to warm up. This doesn't mean you have to *teach* writing. (Do you have to teach typing to insist on typed papers?) There is no greater service you can provide to us writing teachers or to a Writing Center than to make students angry by demanding good writing yet not stopping to teach it. What writing teachers need most is for students to need us.

ABOUT SURFACE CORRECTNESS: SPELLING, GRAMMAR, TYPING

I don't penalize for mistakes on in-class writing since students have no time to revise with fresh eyes and have no access to help. For exploratory think pieces done out of class, I require what would be appropriate in an informal letter to me: some mistakes are no problem, but the pieces can't be riddled with errors, nor sloppy, nor hard to read. A few students can just go back over a first draft of a think piece and correct obvious errors; other have to recopy and correct. (But some teachers insist on typing and good copy-editing even on think pieces.)

For genuine essays, it's important to demand not only clear well-organized writing but also typing and good copy-editing. I require essays to be "virtually free of mistakes." Many students can't achieve this without the help of a friend (or paid typist). This is appropriate; this is how most writers operate; it's how I operate. When they are writing for other situations, they don't usually need to know how to get rid of all mistakes; they need to know to get the help they need to get rid of all mistakes. The main thing I'm trying to teach students about spelling and grammar is, again, schizophrenic: they are not important for exploratory writing, but they are *crucial* on final drafts.

PREVENTING PLAGIARISM

I can't catch all plagiarism--and I start to go blind and insane when I try. But when I catch it, I feel I should make the consequences weighty. We need trustworthy evidence, however: it's no fair saying, "This is too good for you." Most students are capable of astonishingly good work. The best approach is to *prevent* plagiarism. Here are some ways:

- Collect lots of informal writing so students know that you know their style or voice.
- Assign specific or idiosyncratic topics for high stakes writing where someone might be tempted to cheat--so they can't lift things from books or other courses. (Examples: "Apply this theory to that data"; "Describe your reactions to X and then go on to . . ."; "Write an essay in which you reflect on what so-and-so says on page 134"; "Write a short story that illustrates the principles we've studied this week.")
- If it's a large course with different section leaders, have those leaders make up different assignments for think-pieces and essays--so students are less tempted to share work between sections.

SOME PREMISES THAT UNDERLIE THESE SUGGESTIONS

- Students understand and retain course material much better when they write copiously about it. We tend to think of learning as *input* and writing as *output*, but it also works the other way around. Learning is increased by "putting out"; writing causes input.
- Students won't take writing seriously till *all* faculty demand it.
- Writing needn't take any time away from course material.
- We can demand good writing without teaching it. The demand itself teaches much.
- Students won't write enough unless we assign more writing than we can comment on--or even read. There is no law against not reading what we make them write.
- Writing can have a powerful communal or social dimension; it doesn't have to feel solitary.