

Mark your Calendar now for ITLAL Winter Events

December 12
Winter Interlude

With special guest **Chris Price**

**Teaching for the 21st Century:
Making Technology Work for
Learning**

9:30-11:30am & 12:30-2:00pm
ITLAL Underground (Library 69)

Join us for this pair of workshops that will explore the implications of technology for academic integrity, classroom climate, and student learning.

December 2014
Flipped Classroom Project
(By application)

Details forthcoming at itlal.org

If you'd like to hold students more accountable for preparing content ahead of class so that you can spend class time more actively, you may be ready to flip your classroom! Visit our website for more details or to apply.

January 7 & 9, 2015
**Team-Based Learning
Academy**

(By application)
9:30am-3:30pm

ITLAL Underground (Library 69)

Join the ranks of the 150+ UAlbany instructors who now use some version of TBL. Learn the method and its techniques, and redesign your course for higher-level learning goals and greater student engagement.

The Good News about "Bad" Student Writing

Tell the truth: you've stared at a set of error-riddled papers asking yourself (or whoever happened to be nearby), "Why didn't SOMEONE teach these kids to write?" When you're facing that stack of grammatical and mechanical misery, it can be easy to despair for the future of the written word, the literacy of the next generation, democracy as we know it, and the fate of humankind. But despair no more—there is actually *good* news about student error!

In fact, there's a *wealth* of good news in the literature on composition and cognitive development. In one recent summary of the research, "Cognition and Error in Student Writing," Sarah Tinker Perrault provides an insightful overview of recent work in the field and offers hope (and concrete suggestions!) for keeping error in perspective while helping students learn to write in our disciplines.

Cognition and Student Writing

We tend to believe that writing operates like this: you acquire a set of basic skills (spelling, grammar, punctuation, mechanics, syntax), and once you're learned those, your proficiency will remain stable for the rest of your career as a writer. This means, we think, that surface-level errors must demonstrate a lack of the most fundamental writing skills. The research actually shows something very different. In fact, the majority of student errors can be attributed to *cognitive overload*, or "a writer's struggle to manage too many mental activities at one time" (Perrault 51). This overload manifests when students are writing about content that is new or unfamiliar: simply recalling the conceptual information strains their cognitive resources. When they are asked to process this new information *and* simultaneously manage the task of writing, which is itself cognitively demanding, they will often make significant surface-level writing errors. As content expertise grows, recall of information becomes more automatic and greater attention is available for the process of writing itself, resulting in fewer errors.

Another common belief is that content and writing skills improve incrementally over time, and if we are thinking broadly about groups, this is true (i.e., college freshmen should be better writers than high school freshmen). However, writing development for individuals is actually much more complex and deceptive; the progress writers make isn't always a clear trajectory. Cognitive scientists call this phenomenon "u-shaped" learning: as students are becoming more expert in the content of a discipline, their writing skills temporarily decline. This does not mean that they have lost skills (or that they never had them in the first place) but instead signals that their full cognitive resources are required to integrate the new knowledge.

What does all of this mean in the short term for interpreting student error? Here's the good news: errors in student writing are evidence not of deficits but of *cognitive growth*. U-shaped learning means that much error-filled writing results from cognitive leaps that interfere with the executive functioning required to produce clear prose: these errors show us that students are learning. This new interpretation of error has several implications for including writing in courses across the University curriculum.

Implications for Writing in University Courses

1. Focus writing on disciplinary content.

Writing is in itself a way of learning: writing practice will help to embed important information in students' memory. Perrault cites numerous studies across various disciplines demonstrating that students who are frequently required to produce short, informal pieces of writing perform better on tests of conceptual understanding, suggesting not just better recall but deeper learning as well. This improvement in learning happens not just because students have worked with the content and can recall it more easily, but most importantly because of the way they begin to organize and store information. Asking students to write in your discipline helps them to begin creating organizational structures, trains them to begin thinking more like an expert, and creates opportunities for your feedback to guide their development. As their content fluency improves, they will also be able to write more effectively: because they can recall the content with less effort, they can devote greater cognitive resources to writing mechanics.

2. Have students practice the writing strategies that they will use in formal assignments.

Because errors are an important part of the process of learning to write in a new context, it's important to create opportunities for these errors to surface before major assignments. When students begin writing in an unfamiliar content area, they are struggling not only with new information, but also with a new rhetorical context. This means that students who are perfectly fluent writers in History may be struggling when they are asked to write a lab report in your Biology course. Frequent practice writing in situations and

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forms that are typical to your field is crucial to helping students gain fluency.

Practically speaking, what does this practice look like in your course? First, the frequent low-stakes (or ungraded) tasks should require students to do the same kind of thinking and writing as subsequent high-stakes, graded tasks. For example, if students in your class are called upon to make formal arguments in their essays, they should be writing in an argumentative mode on a weekly or daily basis in your class. If they are going to be required to write about the results of experiments in a lab report, ask them to write up key segments of a lab report based on findings from experiments that appear in their assigned reading. Research has found that these kinds of practice will help students begin to internalize rhetorically appropriate patterns of writing and tune into implicit expectations—even without voluminous feedback from you.

Second, as students engage in these practice opportunities, it's important to remind them that the skills they are building are the same ones they will use when it comes time for them to perform on the higher-stakes writing tasks. While we assume that students should be able to see the similarity between practice tasks and larger assignments, the research on learning transfer shows that students do not automatically make this connection. Let students know that they have been writing arguments all semester long in their short papers or that they have been writing up the results of experiments in their homework: reinforce the idea that they have already practiced writing in this situation and with the same goals in mind.

3. Use short, frequent writing exercises.

While we tend to believe that learning to write well results from having the discipline to sit at our desks and write for extended periods of time, a good deal of research shows that if long-term learning is the goal, frequency and repetition matter more than the length of time spent on individual tasks. Perrault cites studies demonstrating that as little as ten minutes a day writing in a discipline is enough to produce substantial improvement in students' understanding of disciplinary concepts *and* in the clarity of their writing. The best news for us as teachers is that these do not have to be graded tasks because the repeated engagement with the content and the rhetorical situation makes a difference in student writing.

The key to implementing these first three principles is assigning tasks that are well integrated into your content instead of simply "add-ons" to the other work students are doing in the course. Here are a few examples of the kinds of brief, informal assignments that can help your students learn disciplinary content and practice writing skills in your discipline.

- Focused summary: Write a brief summary (1 paragraph to 1 page) of the main point of this week's reading or lectures.
- Response paper: Write an analytical response to this week's reading assignment. For example, "Would the author of the article you read agree or disagree with X claim. Explain."

- Process analysis: Trace the steps taken to solve a problem.
 - Case study analysis: Using information from this case, propose a solution to the problem it poses or predict an outcome.
- The nature of the writing tasks in your courses will depend upon your content and your goals for students' writing development.

4. Use student writing as models.

Often the best examples of writing in our fields can feel unattainable for our students, which means that good student writing tends to work more effectively for modeling. At the same time, it is important not just to give students an excellent student paper and say, "This is what I expect you to do." If you want students to model their work after a particular piece of writing, you need to spend some time working to help them analyze its strengths and the writer's approach to key challenges. This can be staged by using one model and asking students to assess its strengths and weaknesses, or even better, ask students to read three or four examples (these may be excerpts) and rank them according to the same criteria you use for grading. This should lead to a very rich discussion of writing strategies and gives you the opportunity to explain some of the implicit expectations of writing in your discipline.

5. Resist the temptation to edit students' writing.

Research shows that too much attention to surface error can distract and confuse students. When you do give feedback, stay focused on global concerns rather than correcting their grammar and mechanics: those errors are often the residual effects of cognitive overload, and they *will* diminish with practice.

Why Should I Spend Time on Writing in my Courses?

It's important to recognize that having students write frequently isn't a distraction from the content: instead, it should strengthen their understanding and help them to think more disciplinarily (even—and perhaps especially—when their writing is "bad" on the surface). Moreover, requiring students to write changes their experience of your course. In his study of college students' experiences, Richard Light found that "The relationship between the amount of writing for a course and students' level of engagement [...] is stronger than the relationship between students' engagement and any other course characteristic. It is stronger than the relation between students' engagement and their impressions of their professor. It is far stronger than the relationship between level of engagement and why a student takes a course (required versus elective; major field versus not in the major field)" (64). What does this tell us? Asking students to write more will not only lead to improved writing and deeper disciplinary knowledge, but it will also keep students more engaged.

Sources:

- Light, Richard, *Making the Most of College: Students Speak Their Minds*. Cambridge: Harvard University Press, 2004.
- Perrault, Sarah Tinker. "Cognition and Error in Student Writing." *Journal on Excellence in College Teaching* 22.3 (2011): 47-73.



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