## Writing to Learn, Learning to Write: Are Students in FSEM 1111: "Colorado's Rivers" Doing Either Effectively?

### Hillary Hamann

Department of Geography & the Environment

For two years I have taught an FSEM entitled "Colorado's Rivers." The course was born out of both my recreational and research interests and broadly addresses the geography, hydrology, human impacts to and future of rivers in Colorado. The course was designed to meet the FSEM Common Curriculum learning goals to develop an intellectual community and practice active learning through a variety of inquiry activities. In my class these activities include readings, discussions, field/laboratory work, a service project and writing assignments. In addition to weekly reading summaries, students are assigned to write seven critical analysis essays. My syllabus states my goal for this latter assignment: to help students "to engage more specifically and deeply with the week's readings and activities."

However, despite reading and grading more than 200 of these essays over two years, I have not stepped back to examine whether my assignment indeed promotes the learning goals that I have expressed. Because this assignment spans the 10 week course and is repeated it provides an opportunity to use these writings as "revealing classroom artifacts" (Melzer 2009: W240) to examine learning. In this essay, I closely examined the essays of my 2012 FSEM class to identify common pitfalls in early writings and to determine if students show improvement through the quarter. More broadly, I questioned whether that students are "writing-to-learn" or "learning-to-write" ("writing-in-thedisciplines") through these essays with the goal of better aligning my learning

expectations and goals with my writing assignments and student outcomes.

Melzer (2009) concisely defines the focus of "writing-to learn" as an expressivist pedagogy, and thus as informal and exploratory with the self as audience. He contrasts "learning-to-write" or "writing-inthe-disciplines" as investigating writing in different and specialized discourse communities. Additionally. Rosen (in Russell 1992:158) suggests disciplinary writing to be more formal and impersonal. Yet, as Melzer (2009: 244) also highlights, many examining the Writing Across the Curriculum (WAC) movement argue that a split between these two approaches is artificial. Certainly, it the goals of WAC are to use writing "to produce active studentand teacher-centered learning" (Russell 1992: 165), than there is room for more integration of both approaches.

#### Expectations

Before participating in the 2013 ASEM/FSEM Writing Institute, I had not thought explicitly about WAC or its goals. Indeed, in teaching an FSEM, although active learning and intellectual community are learning goals, writing per se is not. Still, because I assign writing, it is helpful to examine the goals and conventions that I expect, even in retrospect.

I provide students with a detailed, fourpage assignment and grading rubric handout for the Critical Analysis Short Essay assignment. This handout details length expectations (250-350 words), due dates and online turn-in procedures (the essays are due outside of class times and turned in on Blackboard using SafeAssign to help check for plagiarism). The handout also gives a suggested process for students to help them develop a thesis statement and write their essays. Finally, the handout provides an explanation and detailed examples of in-text citation use and formatting as well as my grading rubric for the papers. My grading rubric provides a grid of expectations for each grade (A,B, C, etc) in three categories: content, writing and mechanics. For example, I define an A paper as the following:

- Content--Thesis and ideas are thoughtful, innovative and linked to the week's topic. Thorough support of ideas is provided from the week's assigned readings. Paper provides high quality reasoning and analysis.
- Writing-- Paper is well organized and clearly written with few to no grammatical, punctuation or spelling errors. Direct quotes are only used when critical for capturing author's exact phrasing.
- Mechanics-- Paper follows assignment guidelines for length and is correctly and appropriately referenced.

Examining my assignment through the lens of writing-to-learn and learning-to-write, I find that while my goal for the assignment and perhaps the content element of the grading rubric reflect an emphasis on exploration and writing-to-learn, a large portion of my expectation and rubric for this assignment privileges a learning-to-write or writing-in-the-discipline approach. Geography is a broad discipline that encompasses numerous types of/approaches to writing, similar to what Matthew Evangelista describes of political science. My own physical/environmental science research background and writing conventions are just one example of styles/genres encountered in Geography. Yet, based on my background, I have come to expect similar style conventions from my students including clear organization and a

claims and evidence approach. In my assignment, I expect an essay that:

begins with an introduction that sets out clearly what the author intends to argue, including a summary of the main conclusion or 'findings.' Each paragraph follows in an order that the reader will have anticipated from the introduction. The conclusion typically sums up the overall argument and often proposes suggestions for further research (Evangelista, 168).

Considering these expectations helps to better examine student essays in terms the skills and styles that they bring from their past experiences, the common pitfalls that I identify in their writing and what types of improvements they show with repeated attempts at this particular writing style.

#### Analysis

I began my analysis by reviewing the first set of papers turned in by students. The readings, lectures and discussions in the first week of class that formed the basis for the first essay focused on the early exploration and mapping of Colorado's rivers and the importance of rivers and water resources today. I looked at these essays specifically in terms of my grading rubric categories and present them in the same order: content, writing, and mechanics. I then examined the essays of a few students that showed improvement through the quarter to try to identify where the improvements were occurring in terms of the same categories.

*Content:* In terms of paper content, most students did not seem to have a problem focusing in on a specific aspect of the readings. The level and quality of their thesis, ideas and support varied. Few were strong, a couple were quite weak (eg. providing a summary instead of analysis), but most were acceptable for the first essay.

Beginning with their thesis idea, several patterns appear. The first is the student whose thesis remains too general. As an example, one student wrote the following thesis statement:

There are many underlying issues that Colorado must deal with when it comes to its "precious" water. In contrast, another student provided a clear and focused thesis that was clearly drawing from the readings:

> The author posed the question as to whether conservation or creation was the key to increasing the amount of water available in Colorado. Through reading it has become clear that conservation is a better way to ensure that the people of Colorado have water available in the future.

Katzenstein comments that a challenge for many new college students is "to know what is interesting and to make critical judgments" (174). The second student in the examples above seems, at first glance, to be more skilled in identifying an interesting and critical idea for analysis. However, in terms of innovation and creativity, the following introduction excerpt may be the best of the 15 essays:

> Pertaining to this article, control of the river was control of food, water, shelter and a mode of transportation during the early exploration of the west. Whoever was in control of the river had the say as to who passed through and who didn't, which could've impacted who settled where. Today, this idea of river control is

# equal to nation control can still be applied to an extent.

The idea presented by the student begins to step away from the face-value of the information presented and begins to expand on the ideas of the readings while still using them as support. The clarity of the argument and writing, however, needed some work in order for the essay to reach its full potential. This critique brings up an important example of where the expectation of writing-to-learn starts to cross over to learning-to-write. In this case, writing-inthe-discipline includes a level of specificity and clarity that are necessary even if the student's ideas are good.

*Writing*: For most students, writing organization and grammar were relatively strong. Certain students had clear issues with grammar and spelling, but most could express themselves well. Even clarity was pretty consistent overall. Some students could shorten sentences for clarity, but most didn't get too bogged down in trying to use a voice they were not comfortable with.

Two main writing pitfalls appeared to predominate. The first was the use of questions. A number of students utilized question statements in their introductions. Very often they answered them, but in most cases the question was used as a "hook" to create interest and draw the reader in to the essay. This convention is often emphasized in high school writing assignments such as the five-paragraph-essay. Writing in the discipline of science asks students to be concise, to present the conclusions first (eg. in an abstract) and to interact less with the reader. Thus, in a short essay such as I have assigned to my students, the use of questions or other hooks such as anecdotes use up space (words) that could be more effectively used to argue and support their thesis.

A second writing pitfall (specifically writing-in-the-discipline here) in the first set of essays is the voice and objectivity used by students. Although students may be told in high school never to use "I" in their writing, that aversion did not appear and many students used "I" freely in their essays. The trouble came in how they used "I" and personal opinion in their analysis.

The following example uses "I" in a way that fits within the expected disciplinary style by backing up an opinion with information from the reading.

> One new possible way would be Cloud Seeding mentioned by McDaniel (2012). This is when scientists send up silver iodide chemicals into the clouds and hope they release their precipitation. I am not a huge advocate for this idea because the effects of the silver iodide can be negative. Also there haven't been signs of Cloud Seeding being successful in any particular area.

However, there a many more examples of students who use "I" to fall back on personal opinions or reactions. Here are three examples:

> I enjoyed reading this passage because the information was presented in an easily understandable way and the author strove to show the importance of water in every aspect of our lives.

> The readings from this week were both very interesting yet totally different. I enjoyed reading Orsi's article about the early exploration of Colorado's rivers and how difficult travel was during that time, but McDaniel Article is what I am most interested in.

Throughout the article How Precious is Water? I was repeatedly surprised by facts about where Colorado's water comes from and what uses it is put towards.

One of the conventions of writingin-the-discipline is that authority is often established by the author's absence rather than by their presence (Bartholomae, 622). This convention is one that students are clearly less comfortable with using or they may be drawing more heavily on the genre of the "opinion paper" (Reiff and Bawarshi, 323) that they have more comfort or experience using.

Mechanics: Within my rubric, the mechanics section provided room to make sure that students followed directions for length and references. Student essays almost all fell within the length guidelines. However, despite detailed instructions about how to correctly use in-text parenthetical references, almost none of the students did this without error. Several had no in-text references at all. My informal questions revealed that this format of reference was one that few students had experience with. My comments in student papers corrected formatting, inserted references where appropriate as a demonstration and referred students back to the examples provided in the assignments. Most students showed improvement in future essays, though at least one student was persistent in their lack of use of in-text references. For this student, it appears that referencing habits are quite hard to break.

*Improvements:* Grades and quality of student essays rarely showed a clear trajectory from needs work to improving to improved. Instead, grades bounced around. Some students slipped in some weeks and lost ground on mechanics, writing or content that they seemed to have made up in earlier essays.

There are likely multiple explanations ranging from the relative amenability of the assigned readings to a creative thesis or even an obvious one. It is also likely that the time spent on the essays varied dramatically based on other social and academic demands at the time.

Interestingly, most students showed poorer performance on their second essay. Only two students showed improvement, including a non-native speaker who utilized the writing center. The second student showed relatively consistent improvement through the quarter. While the student began with a style that emphasized personal experience and opinion, his essays first developed a strong thesis, and then began to develop strong support from the readings.

#### Conclusions

The goal of my analysis was to identify ways to better align student outcomes with my writing goals and expectations. In fact, one of the main conclusions that I am able to draw from this exercise is that while I thought my assignment might have leaned toward a writing-to-learn exercise, it also was heavily weighted toward a learning-towrite experience. Knowing this fact, along with many of the pitfalls that students experience related to writing in the discipline gives me several ideas to improve my course and assignments to meet both goals.

First, I see a strong value in being more explicit and transparent to students about the role that their essays play in gaining practice in writing-in-the discipline. I can also be much clearer about what that entails and show students several of the pitfall examples presented in this paper. A corollary to this practice will be including an explicit learning goal in my syllabus to express writing-in-the-discipline, such as, "Students will develop the ability to support assertions with evidence and argue clearly and logically."

Secondly, because I feel that I may be shortchanging students on the practice of writing-to-learn, I plan to alter a second weekly assignment—the reading summaries. By encouraging students to explore and express themselves in a more informal way, I can encourage the first steps of the writing process that my critical analysis essay assignment suggests:

- 1) Prepare by reading all materials and thinking about some of the different issues raised in your reading and in class discussions and activities.
- Select one of the ideas, which has lingered in your mind because you disagree or are uncomfortable with it (critique), or because you agree with it but believe it needs much more thought (analysis), or that you see as a common theme addressed in several different ways (synthesis).
- 3) Consider a question about this lingering idea that you might want to investigate in your paper. Ask yourself what your feelings are about this issue, and what reasons you might use to support your feelings. If you like what you have come up with then you are ready to form a preliminary thesis. If you do not like it then go back and consider another question from your reading.

Finally, I believe that I can help students to develop both their writing-to-learn and learning-to-write skills by incorporating required drafts, peer review and self-editing of papers. By reducing the number, but expanding the length of papers, students can spend more time developing the innovative thesis, strong support and writing conventions that I expect.